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## ORIGINAL ARTICLES.

### ECTOPIC GESTATION.<sup>1</sup>

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AFTER putting the outline of an intended paper on ectopic gestation together, I began to look over the literature on the subject, and then came to the conclusion that, after the many masterly contributions which have already appeared, I could not add any valuable new material. Therefore, I shall take up your time only with the conclusions which I have derived from my personal experience, in a series of nearly one hundred cases of ectopic gestation; seen in my practice.

The causes of ectopic gestation are by no means definitely settled. Undoubtedly, in a great majority of instances, some form of inflammatory disease of the pelvic organs acts as a predisposing factor. I have formerly asserted that in every instance a tubal inflammation is present, usually a catarrhal salpingitis; but during the past few years I have met with several cases in which nothing of an inflammatory nature could be attributed as the cause, and, consequently, I have been compelled to accept the view, put forth by experimental investigation, that, in some instances at least, the etiological factor is that the spermatozoa pass directly into the Fallopian tube, and then meet the ova, and an imbedding takes place, though the tube be in normal condition. If the Fallopian tube be inflamed, even though to a slight degree, or if distorted, as the result of inflammation, or if there is a neoplasm in it, it is readily conceivable that the impregnated ovum remains in the tube; yet, as said before, I feel convinced that there are exceptional instances in which no such pathologic condition exists; therefore my acceptance of the theory mentioned.

The internal migration theory does not seem plausible to me, because the immediate increase in size of the ovum, when it comes in contact with the spermatozoa in the uterine cavity, would seem to me to make it highly improbable that the product should migrate back into the tubal canal. The attachment

may take place in any part between the ovary and the uterus, or in either of these organs.

For the diagnosis of an ovarian pregnancy it is necessary that the respective Fallopian tube be intact and in normal condition, except for its increase in size and the circulatory changes necessarily accompanying such enlargement. The gestation sac must be amidst normal ovarian tissue, and distinctly separate from the tube. Of this variety I have not seen any case, although they do exist beyond doubt.

The variety called intramural by Hennig is probably the next in rarity. It is a slight variation of the interstitial variety in degree only, the interstitial being that form developed in the uterine portion of the tube. In the intramural form, the conception product buries itself in the adjoining muscular structure of the uterus.

I have seen one instance of this variety. On December 13, 1883, I was called to see Lena D., twenty-two years old, who had been married about three years, and presumed herself pregnant for the first time, it having been more than two months since her last menstruation, and, besides, she had had several other symptoms of pregnancy, such as morning sickness and shooting pains through the breast. While dressing her hair she was attacked with an intense, sudden pain in the lower abdomen, so severe as to cause her to fall. This was followed by collapse. The pains continued severe, with slight intermissions, for several hours. Death occurred on December 17th, from peritonitis. On autopsy, the rupture was found to have taken place on the posterior surface of the corpus uteri, near the tubal junction. The abdomen was filled with blood of about the date corresponding to the first day of the attack, showing that had an operation been performed after the subsidence of the collapse, the patient, perhaps, would have been saved.

That a true, primarily abdominal pregnancy exists, is doubtful to many, and I confess to belong to the latter class, believing that primarily the gestation is of the tubal or tubo-abdominal variety. The nearest approach to what may be called abdominal pregnancy in my experience is illustrated by the following case, which was classified under that heading and published in the *American Journal of Obstetrics* in 1880 by the late Professor Montrose A. Pallen:

In November, 1879, I saw a woman, twenty-three years old, the mother of two children, the last being born in August, 1875. At the time of my call on her, which was for the purpose of attending her in confinement, she presumed herself to be then in labor. She gave a history

<sup>1</sup> Read before the Obstetrical Section of the New York Academy of Medicine, February 25, 1897.

of having suffered from inguinal pains for three months, but for the past two days to these pains had been added intense labor-like pains, of such severity that she expected to be delivered at any moment, although she considered herself but six months pregnant. The examination showed what seemed to be the vertex tightly wedged in the cul-de-sac of Douglas, with the vaginal portion of the cervix crowded up behind the symphysis. In the hypogastrium a round, smooth, and elastic tumor was felt, which was considered to be the breech. My attempts to correct the supposed malposition being useless, I called in several gentlemen in consultation, and all agreed with me as to the continuance of the treatment pursued, and also in the diagnosis. I presumed that I was dealing with a gravid retroflexed uterus, and endeavored to correct the malposition.

Professor Pallen operated with the intention of doing a Cæsarean section, when it was found that the condition was an abdominal gestation. The position of the child was as diagnosed previously. The sac containing the fetus was apparently independent of the tubes or broad ligaments, yet no *post-mortem* being obtained (death of the patient having taken place on the morning following the operation) we are not in a position to say anything positive as to the primary seat of the gestation, and whether it was tubo-abdominal and later developing into true abdominal or otherwise. Dr. Pallen, at the time when he reported the case, stated that he extracted a dead fetus. This statement should be corrected, for the fetus lived several minutes after extraction.

The most common variety of ectopic gestation is the tubal, which may of course occur in any section of the canal. In one instance I have operated twice on the same patient for tubal pregnancy, with an intermission of five months. The first time the left tube, and next the right, was the seat of trouble.

*Termination.*—It is but seldom that ectopic gestation will go on to full term. Usually it is interrupted between the second and eighth week; more frequently before the tenth week than later; but by no means is it the case, as supposed by some, that a rupture of the tube is a necessary termination. In my own experience tubal abortion is nearly as frequent. In some instances death of the embryo occurs and the products of conception become innocuous and are absorbed. Again, it may occur in interstitial or tubo-uterine pregnancy; that it is changed into true uterine pregnancy the following example, which I add to those already known, bears out this statement, which is so strongly opposed by Mr. Tait:

February 18, 1886, Mrs. M., thirty-three years old, married eleven years, four children, all normal deliveries. Two and one-half years had elapsed since the last confinement. Since the 3d of the month she had suffered with pain in the right hypogastrium, which radiated over the entire abdomen and down the right thigh. The pain was nearly constant, and was described as being cramp-like in character. The uterus was somewhat diminished in consistency, and slightly enlarged. On the right side it was considerably thickened and painful on bimanual examination. The enlargement was distinctly felt to pass a trifle out-

side of the uterine boundary into the tube. On February 22d a sound was passed into the uterus which was found to be empty. On that day a faradic current was used as strong as the patient could comfortably bear it, the positive pole being placed over the tubo-uterine tumor with the intention of destroying the vitality of the ovum, inasmuch as I had determined satisfactorily to myself that we were dealing with a tubo-uterine pregnancy. I find four such treatments recorded in my notes. At the time of the intended fifth treatment all the pains had disappeared and with it the enlargement of the right side of the uterus and tube. The patient was eventually delivered of a living child at full term by myself.

This case seems to me to be quite conclusive of the possibility of a termination such as that mentioned above.

An ectopic gestation may advance to full term and a living child may be obtained, but such is indeed a rare exception, and one that we have no right to expect. In other cases the fluid contents are absorbed and a lithopedion results, as in the case demonstrated at the meeting of the American Gynecological Society by Dr. Lusk. I have in my practice seen only one instance in which the pregnancy had gone to full term, and in this case suppuration of the sac and maceration of the fetus ensued, so that the patient was septic at the time of operation. In some such cases the sac may rupture into the bowel or bladder and recovery finally take place after a serious and long illness, the contents gradually being expelled through the rupture. Of such a termination I have also seen one instance.

Rupture may occur into the folds of the broad ligament, and with cessation of the bleeding, the products of conception with the extravasated blood may be absorbed; or, in some cases, we may have the formation of a retro-uterine hematocoele, if the bleeding process is slow and pelvic inflammation is present, which aids in the encapsulating of the blood, and this, too, may then be absorbed. Such a process I believe is more apt to be present in cases of tubal abortion when the fimbriated extremity of the tube is attached to the pelvic floor.

*Diagnosis.*—Before the beginning of an abortion or rupture I consider the diagnosis to be a very difficult matter in the early stages, unless there has been an opportunity to make a number of observations of the case, because it is seldom that patients consult us until the onset of the symptoms. One reason why the specialist so seldom has the opportunity to see cases of unruptured or unaborting tubal gestation is that the patients seldom have much cause for complaint before the beginning of the usual termination and so do not think it necessary to consult a physician, but if they do consult the family physician, he usu-

ally does not recognize the condition as being sufficiently serious to call a specialist in consultation. It is, therefore, of the utmost importance that the general practitioner should be sufficiently acquainted with these abnormal conditions and that he be on the alert so that he may be able to make the diagnosis. After the beginning of such a catastrophe the diagnosis should not be difficult. I have but one instance to record in which the diagnosis was not made, and since then an opportunity has been afforded me sixty-two times to operate for ectopic gestation, in which it was corroborated in each instance. *The sixty-two cases resulted in fifty-eight recoveries and four deaths.* The characteristic features are the cessation of the normal menstrual period for a greater or lesser period of time (usually from a few days to five or six weeks); the occurrence of intermittent cramp-like pains in the lower abdomen; notably beginning on the affected side and then radiating over the entire lower abdomen; a discharge of thick, dirty chocolate-colored sanguineous fluid, in variable amounts, which adheres to the examining finger (the irregular bleeding usually is indicative of the death of the embryo); the uterus enlarged and of the consistency of a uterus affected with chronic hyperplasia; to the side of the uterus a mass, intimately adherent to the organ, in many instances traceable into the retro-uterine space. The mass has no definite outline; varies in size, and is of a hard consistency, but not as firm as ordinary inflammatory exudate, feeling somewhat similar to a pyosalpinx surrounded by perimetritic products. In nearly all cases the breasts contain colostrum. The discharge of a decidua adds to the certainty of the diagnosis, but I must confess that despite the stress placed by most writers on this last objective symptom, I have found it absent in many of my cases, so that I do not place very much significance upon its absence. The blood later on changes to a bright red in spots, in some instances, and in others again, it assumes the bright red color after three or four days' time. The presence of anemia, more or less marked, is prominent in all cases according to the amount of blood effused into the peritoneal cavity.

I have not been able from my experience to lay down any rules enabling one to differentiate tubal abortion from tubal rupture. Those which have been placed before the profession do not bear out my experience.

From these characteristic symptoms many variations occur under different circumstances. I have, for instance, seen one case in consultation in which the only symptom, in addition to the hyperplastic condition of the uterus, was the sudden occurrence of extreme weakness and marked anemia. Upon these two conditions the probable diagnosis was principally

based. There was a suspicious feeling in the cul-de-sac of Douglas as though free fluid were present, but it was by no means prominent enough to enable one to say with certainty that such was the case. It was found upon abdominal section that the right Fallopian tube, which was the seat of an extensive rupture, was held high up in the pelvis by old inflammatory bands.

In the later stages of pregnancy the diagnosis becomes much easier. Here the size of the tumor, its gradual growth, and other more marked symptoms of pregnancy all aid one to make a correct diagnosis. I have purposely refrained from speaking of pregnancy in a bicornate uterus, because I have had no personal experience with the condition.

*Treatment.*—I believe that the advocates of electrical treatment in such cases are rapidly diminishing in number. We should consider an ectopic gestation in the same light as a malignant neoplasm. There is no doubt in my mind that electricity, especially the galvanic current, has been used with advantage, as one can see from the careful treatise on this subject by A. Brothers in the *American Journal of Obstetrics*, yet at the same time it is in my opinion more dangerous than is operative interference in the hands of an experienced surgeon. The death of the embryo does not preclude either the danger of hemorrhage or the danger of decomposition of the sac contents. As to the injection of narcotics into the sac, as practised by Von Winckel and some others, the danger is the same as far as suppuration is concerned, yet in a locality where it is impossible to procure an experienced operator either one of these methods is safer for the patient than operation, and should be advised.

In early ectopic pregnancy the operative plan is understood by all, and I do not think any one is at variance as to technic if the abdominal route is chosen.

One error frequently committed is that the patient on account of unfavorable surroundings is transported to a hospital for operation when she is suffering from a ruptured tubal gestation. This is a very serious mistake, as such patients often do not bear the removal, or during the transport have another and perhaps fatal intraperitoneal hemorrhage. Hence, I have usually considered it wisest to operate upon such a patient at her own home, despite bad surroundings, because the surgical work can be done just as aseptically and thorough, although the inconvenience to the operator is tenfold. The after-treatment under these circumstances is surrounded by numerous and serious difficulties, especially if a drainage tube is left in the abdomen. This objection does not hold good with me, because I do not use a drainage tube. If the adhesions are so numerous that they cause considerable bleeding when separated, an

intra-peritoneal gauze packing is employed according to the method of Miculicz, and the subsequent absorbent-cotton dressing on the abdomen is sufficient to protect the wound under all circumstances. As to the other after-treatment, it can be carried out satisfactorily, so far as my experience goes in probably more than 300 abdominal sections performed under these so-called unfavorable surroundings. My idea is to stop the bleeding in such a patient wherever the patient may be.

Again, I have not found it necessary to wash out the abdomen and to remove all of the blood in the careful manner usually advised. Formerly I practised this, but latterly have not, and I have come to the conclusion that on account of the blood being rapidly absorbed by the peritoneum, it is more to the interest of the patient to shorten the operation, than to lose twenty minutes or more upon an exceedingly careful toilet of the peritoneal cavity. This, of course, only holds good for such cases as those we have under consideration.

I do not care to operate when the patient is in a condition of extreme shock, or better say, collapse, because under such circumstances the patients do not bear an operation of such magnitude well, and usually it is possible to rally them to a better condition when there is at least a fair heart action, if the cases are properly treated. As soon as this has been achieved no time should be lost and false hopes entertained, but the operation should be performed as rapidly as possible, for, with the extremities bandaged and with proper stimulation, everything for the operation being in readiness, the bleeding tube can soon be tied off, with a favorable chance of recovery of the patient.

In unruptured ectopic, or if rupture has taken place and the uterus is freely movable, I consider that the vaginal operation should have the preference. To Dührssen belongs the credit of having first performed and published it, but without the knowledge of his work and before his publication, I also performed vaginal celiotomy for ectopic gestation and presented the specimen before the New York Obstetrical Society. I would not, however, recommend that the operation be performed from below indiscriminately.

In advanced ectopic gestation, it was formerly customary to leave the placenta *in situ* and to sew the sac wall to the abdominal wall, packing with gauze and irrigating the cavity. This is a method which should not be used unless the adhesions are so dense that it is absolutely impossible to separate them. If possible, the entire sac should be enucleated. If suppuration has taken place, however, the old procedure is safest.

The form of treatment of pelvic hematocele due to

ruptured extra-uterine pregnancy has two sets of advocates. I was surprised, when a paper was announced on a "new treatment" for this condition, to find that it was one which I thought was practised by everyone, but I was still more surprised when, in the discussion which followed its reading, there was a variance of opinion as to the treatment of the condition from below or above. It, therefore, seems evident that no unanimity of opinion exists, so far as the treatment is concerned. In some cases the blood will gradually become absorbed; in other cases, however, the pressure effects are so great that something must be done; and, again, in other cases, suppuration necessitates interference. If the exudate is small, and does not give rise to any alarming symptoms, it is sufficient to command absolute rest and apply an ice-bag over the abdomen; if some pain is present, however, my patients have usually demanded more active interference. After the requisite preparation of the patient, operator, etc., I use a Palmer uterine dilator, the dull ends of which have been ground down to a sharp point. This makes the point of puncture not much larger than that of an ordinary exploring needle. It is pushed into the most prominent part of the hematocele, and the blades are spread. Between them the blades of a Bischoff's rectal dilator are placed and the opening stretched to any desirable extent. I have repeatedly made the opening large enough to introduce my hand into it, if the patient had a large and relaxed vagina, and in these cases was able to explore the entire interior of the sac. After washing out the cavity, it is filled with either iodoform, sterilized or sublimate gauze. The latter is left *in situ* for two or three days, and an ice-bag is applied over the abdomen, and thereafter the dressing is changed every two or three days, or even every day, according to indications, and the cavity allowed to close down gradually. In one instance I had a serious hemorrhage from the point of puncture, but this occurred in April, 1886, when I used a pair of scissors with which to both puncture and dilate. Since then I have had no serious mishap, although in 1889 I had a case in which there was continuous bleeding from a torn vaginal vessel, lasting more than two days. Dr. Von Ramdohr assisted me in this case, and it required considerable search before the vessel was found and sutured. I am not satisfied with the making of a small aperture in these cases, because such openings close too rapidly, making the subsequent dressings too painful. The important point is that the opening should not be made with a cutting instrument, but with one which will gradually stretch the vaginal puncture. The healing process I have found to take from two to eight weeks, according to size of cavity.

# A NEW, PRACTICAL DISINFECTANT MATERIAL.

By CHAS. T. MCCLINTOCK, M.D.,  
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SEVERAL years ago<sup>1</sup> I published the results of some studies on the germicidal value of corrosive sublimate. Geppert, Abbott, and others had shown that sublimate was not as powerful a germ destroyer as most persons supposed. My experiments showed that, exceptionally at least, germs grew after exposure to sublimate solutions as follows: *Staphylococcus pyogenes aureus* in sublimate 1-1000, twenty-three hours; *staphylococcus pyogenes aureus* in sublimate 1-100, eleven hours; *staphylococcus pyogenes aureus* in sublimate, saturated, one hour; *bacillus subtilis* in sublimate 1-1000, forty-one hours; *bacillus subtilis* in sublimate, saturated, eighty-five minutes; swine-plague in sublimate 1-200, one hour; typhoid germs in sublimate 1-1000, one hour; germs in feces in sublimate 1-1000, twenty-four hours; germs in feces in sublimate, saturated, twenty-four hours.

I said, furthermore: "However, the proof that sublimate is not a good germicide is no proof that it may not be valuable as a disinfectant. If my interpretation of its action be correct, it follows that a germ treated with sublimate, and possibly with solutions more dilute than 1 to 1000, unless, perchance, it gets into the blood or is exposed to very exceptional conditions, is powerless to grow; that is to say, it is probable that a spore of *subtilis* or anthrax treated with sublimate 1 to 1000, and then thrown on the soil or into water, will not germinate, owing to the fact that the capsule of sublimate surrounding it is not removed." I pointed out the mistake of the earlier experimenters in concluding that the germs were dead because there was no growth on culture media. I then gave the following probable explanation of the failure of sublimate to kill the germs, although apparently doing so: "Many germs have a gelatinous envelope, often seen in old cultures. The sublimate chemically unites with and coagulates this envelope, and so shuts itself out from the germ cell. There is probably an exact similarity here to the case where spores survive for months in absolute alcohol. Absolute alcohol is immediately fatal to protoplasm, and the only explanation we can offer for the facts is that the alcohol does not reach the interior of the germ cell. Now, if these germs after treatment with sublimate are transferred to gelatin, agar, etc., they do not grow, although many of them at least may still be living. If by appropriate means the sublimate coagulum sur-

rounding the germ is removed, it will grow (provided the exposure to sublimate has not been too long)."

Believing that the failure of sublimate as a germicide was chiefly due to the fact that it coagulated albumens, I undertook some experiments to determine if this coagulation could be avoided and the solution be made to retain the poisoning power of the mercury salt. It is well known that alkalies tend to dissolve albumens and to prevent their coagulation either by heat or chemicals, but the most valuable germicides of the mercury salts, the biniodid and bichlorid, are precipitated and rendered inert by the alkalies. It then occurred to me that in a double salt of mercury and some other metal it might be possible to find a compound that would not give up its mercury to a weak alkali. I tried many combinations with mercuric chlorid, but in vain. I did find with one of the sulphites a combination that worked satisfactorily when freshly made, but on standing in the air the sulphite was changed and the mercury precipitated by the alkali. Turning to the iodids, I was more successful. For example, a solution of the double salt of mercury and potassium iodid will permit the presence of a weak alkali without precipitation of the mercury. In such a solution albumens are dissolved; further, nickel and steel are protected by the alkali from the action of the mercury. This seemed to be what I was looking for, as it was a germicide more active than mercuric chlorid or iodid that would not tarnish instruments. But, after making hundreds, even thousands, of experiments with the material, it was not satisfactory. The trouble seemed to be in the amount of alkali needed: if too much was used, the mercury was precipitated; if too little, the metals were attacked. If the correct amount was employed at the outset, some of it might be used up, uniting with albumens, for example, in disinfecting the skin.

I next took advantage of the well-known fact that when neutral soaps are dissolved in water they are gradually decomposed into acid soaps and free alkali. By combining my mercury salt with the soap, when this was dissolved, I got a gradually increasing amount of alkali, sufficient to replace any used up by albuminous or other bodies present in the field of experiment. But some soaps, I found, liberated the alkali too rapidly, others too slowly. The amount of alkali and the rate of liberation depend in part on the nature of the oil from which the soap is made; also, to some extent, upon the amount of glycerin, free alkali, fatty acids, unsaponified fat adulteration, etc. After a long series of experiments to obtain the right kind of soap, the proper amount of the mercury salts, etc., I obtained a combination that

<sup>1</sup> "Corrosive Sublimate as a Germicide," MEDICAL NEWS, October 1 and 8, 1892.

appears to be fairly satisfactory. At first I used a soap containing one-half per cent. of mercuric iodid; but, by varying the composition of the soap, I found I could use one per cent., and later on two per cent., of the mercury salt. I give here the results of a few of the experiments made with this material; also, some experiments made at the same time with other disinfectants. A word as to the method used in making the tests. The germs used were anthrax spores, typhoid, cholera, diphtheria, and staphylococcus pyogenes aureus. Most of the experiments were with the common pus germ, staphylococcus pyogenes aureus, as this is the organism against which our attempts at disinfection are usually made. Several different recently-isolated cultures of this germ were used. In some series of experiments, in order to avoid the danger of carrying along on the platinum wire sufficient of the disinfectant to act as an antiseptic in the culture medium, I proceeded as follows: The germs were placed for a given time in the solutions to be tested, then one or more loops were removed to a tube containing five cubic centimeters of sterile water, to which had been added two or three drops of ammonium sulphid. In this method, introduced by Geppert, any of the disinfectant carried along in the drop of fluid clinging to the platinum loop is precipitated. From this second tube two loops were then transferred to a third tube of bouillon or, in some of the experiments, melted gelatin. If after some days in the incubator the tubes showed no growth, they were then inoculated from the original culture used in the experiments, in order to show whether germs would grow.

In some of the series mere dilutions were used, the germs after being in the disinfectant being transferred to a tube of bouillon, and from this tube a second one was inoculated.

## TABLES.

1-PER-CENT.-ANTISEPTIC-SOAP SOLUTION, CONTAINING 1-5000 MERCURIC IODID.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
S. p. aureus .....	o	o	o	o	o
Cholera .....	o	o	o	o	o
Typhoid .....	o	o	o	o	o
Diphtheria .....	o	o	o	o	o

## MERCURIC CHLORID, 1-5000.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
Cholera .....	o	o	o	o	o
S. p. aureus .....	+	+	o	+	o

1 + Means growth.

## MERCURIC CHLORID, 1-1000.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
S. p. aureus .....	+	o	o	o	o

## MERCURIC IODID, 1-5000.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
S. p. aureus .....	+	+	+	o	o

## MERCURIC IODID, + 0.6 PER CENT. SODIUM HYDRATE; SOLUTION, 1-5000.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
S. p. aureus .....	+	+	o	o	o

## CARBOLIC ACID, 1-20.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
S. p. aureus .....	+	o	o	o	o

## 0.2 PER CENT. ANTISEPTIC SOAP; 1-25,000 MERCURIC IODID.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
Pus .....	+	+	o	o	o

## MERCURIC IODID, 1-1000, + 0.06 PER CENT. SODIUM HYDRATE.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
Pus .....	+	+	+	o	o

## MERCURIC CHLORID, 1-1000.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
Pus .....	o	o	o	o	o

## MERCURIC IODID, + 1.2 PER CENT. SODIUM BICARBONATE; SOLUTION, 1-5000.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
S. p. aureus .....	o	+	o	o	o

ANTISEPTIC SOAP,  $\frac{1}{4}$  PER CENT., CONTAINING MERCURIC IODID, 1-20,000.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
S. p. aureus .....	o	o	o	o	o

## ANTISEPTIC SOAP, 1 PER CENT.; MERCURIC IODID, 1-5000.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
<i>S. p. aureus</i> .....	+	o	o	o	o

## ANTISEPTIC SOAP; MERCURIC IODID, 1-2000.

Germ.	1 Min.	5 Min.	15 Min.	30 Min.	60 Min.
Anthrax spores.....	o	o	o	o	o

The antiseptic soap was tested after it had been exposed two months to sunlight. The results were as good as with the fresh material. While, in the above tables the results are not entirely uniform (as would be expected by any one familiar with the testing of disinfectants), it will be seen that in but a single case (this is true for the thousands of experiments as well as for the examples shown above) did any one of the germs tested—typhoid, diphtheria, cholera, aureus, and anthrax—survive one minute when the solution was as strong as one per cent.

There are a number of antiseptic soaps offered for sale. I have examined several. Most of them are merely soap to which a certain amount of corrosive sublimate has been added. Any tyro in chemistry ought to know that this is an incompatible mixture. As soon as the soap is dissolved it begins to break up into free alkali and acid soap, and the alkali will at once precipitate the mercuric chlorid. Certain of the antiseptic soaps are combinations of the phenols, thymol, etc. I have tested most of the soaps of this character now on the market. Tested against the pus germ, *staphylococcus pyogenes aureus*, these gave, even in five-per-cent. solutions, growths up to 15 minutes, or as long as tested.

As said before, this soap does not attack nicked or steel instruments under any ordinary exposure. They may be boiled in a strong solution of it without harm. If left in the soap solution for some days, however, the instruments may rust. For the past six months I have used this soap exclusively for shaving and disinfecting the site of injection and operation in a number of horses used in the production of antitoxin. During that time the percentage of abscesses and suppurating wounds has been less than one-half of what it was when mercuric chlorid and carbolic acid were used. The razors used have never shown the least effect from the mercury salt. It seems to me that the material should be of value to the surgeon, and particularly useful to the gynecologist and obstetrician, as it will serve both as a disinfectant and lubricant for hands and instruments.

As a general disinfectant for physicians' use after visiting cases of infectious diseases, after examining cases of gonorrhea, syphilis, tuberculosis, etc., it should have a place. Several specialists are testing it in skin diseases, and it may be of service, owing to its power of dissolving albumens and because it is so penetrating, where mercuric chlorid would coagulate and shut itself out. I have used it in one case of gonorrhea as an injection with apparent success. Only a few detailed experiments are given in the tables, although I have made some thousands with this material. I have also asked several friends of mine, working bacteriologists, to test the material. Their results are substantially the same as mine.

In testing this soap, one may be misled as follows: A loop is transferred from the soap solution that has been inoculated with the germ. This is placed in bouillon or gelatin. After some hours the medium becomes cloudy and looks as if it contained a vigorous growth of germs. But this is a deception. The cloudiness simulating a germ-growth is due to the decomposition of the soap and a partial precipitation of the same by the sodium chlorid present in bouillon. An inoculation from this tube into a second will settle the question.

**Conclusions.**—(1) In proportion to the amount of antiseptic contained, this soap is at least five times as strong as any known germicide. A one-per-cent. solution of the soap, 1-500, of mercuric iodid, is at least equal to 1-1000 mercuric chlorid. (2) As it would ordinarily be used, it is at least as strong as any germicide in common use; *i. e.*, I believe that if a wet cake be rubbed over the hands, the layer of soap next the skin will be at least a one-per-cent. solution, and, as the tables show, this is at least as strong as 1-1000 mercuric chlorid. (3) It does not coagulate albumens or attack nicked or steel instruments. It does not seem to have any action on lead, and so will not injure waste pipes. (4) It will attack silver and aluminum instruments.

HYDROTHERAPY IN TYPHOID FEVER.<sup>1</sup>

By FRANK H. DANIELS, M.D.,  
OF NEW YORK.

THE use of water externally is one of the oldest therapeutic measures of which we have a record in medicine. Not wishing to go deeply into ancient history, let me simply say that Hippocrates laid down rules for the use of this agent in both acute and chronic disease. Later it was used extensively in Rome; and even the Emperor Augustus bears testimony to its advantages in his own person. For a time it fell into disrepute or rather, to use a famous expression, into innocuous desuetude, only to be re-

<sup>1</sup> Read before the Harvard Med. Soc., of New York, March 27, 1897.

surrected by Floyer, an Englishman, in 1697. Since then it has had its champions and opponents in all parts of the world, until to-day it is universally recognized by those who are acquainted with its scientific use as one of our most potent agents in the treatment of all forms of disease.

Currie, a century ago, spoke of its great value in all acute fevers, and his work was translated into several foreign languages. Priessnitz, the Silesian peasant, early in this century popularized the treatment, and his name has now become closely associated with hydrotherapeutic procedures. It remained for Brand of Stettin, however, in his work which appeared in 1861, to put hydrotherapy, as far as typhoid fever is concerned, on a proper scientific basis. He claimed that full baths at a temperature varying from 80° to 65° F., would reduce the mortality of typhoid fever to a lower point than any other known method of treatment; and, further, that if the baths were resorted to early enough, and carried out properly, every case ought to be saved.

In order to fully appreciate the value of this method of treatment, let us first consider the effect of cold water upon the human body when applied externally. The first effect of immersion makes itself felt on the peripheral circulation, and the terminal nerve filaments in the skin. Under the stimulus of the cold the cutaneous blood-vessels contract, and this is followed later by relaxation. This naturally forces the blood into the other organs of the body and helps thereby to restore the tone of the general circulation. The shock to the terminal nerve filaments is conveyed to the central nervous system and thence reflected to various parts of the body. The effect on respiration is to cause at first a gasping followed by a deep inspiration. These spasmodic efforts soon give way to a normal but deepened rhythm. The stimulating effect on the heart is shown by Winternitz's experiments. He found that cold applied to the surface at first increases the pulse-rate, which is immediately followed by a diminution. The urine is increased in quantity and its specific gravity lowered.

To the direct stimulation of the central nervous system and the heightened tone of the circulation, is attributed the beneficial effects of the cold baths on the nervous symptoms in typhoid fever. Whereas, the blood has been circulating sluggishly in dilated, inelastic vessels, it is now forced through vessels which have recovered their tone, and it is enabled to reach all parts of the body. The deepened respiration allows more oxygen to be taken up by the blood, and the result must be an enriching of the blood supply to the detriment of the toxins circulating therein. No such beneficial effect would be obtained if the cold baths were given without continued fric-

tion to the surface of the body. The relaxation following the original contraction of the blood-vessels, due to the sudden contact with cold water, would then remain constant, and the result would be depressing instead of stimulating to the general circulation. The friction employed is a constant irritation, both to the peripheral circulation and the terminal nerve filaments in the skin; and by this means we accomplish the advantage claimed for this method of treatment.

Flint says in the fifth edition of his "Practice of Medicine": "It must be admitted that the known resources of therapeutics do not afford reliable means for the arrest of typhoid fever, nor even for shortening the duration of the febrile career. In the present state of our knowledge the most important object of treatment with reference not to arrest or abridgment of duration, but to severity and danger to life, is the reduction of the body heat. There is ground for the belief that in typhoid and other fevers, where there is continued hyperpyrexia, the severity and danger to life are due directly in a greater or less degree to the increased heat of the body." If this statement of Flint were correct, the Brand treatment of typhoid fever would have no reason for existence, as none of its supporters claim that it has any marked influence upon the body temperature. They would acknowledge the truth of his first statement, namely, that we have as yet no reliable means for its arrest or even for shortening the duration of its febrile career. But the claim is made and substantiated, I believe, that this treatment enables the patient to bear the continued high temperature without danger or bad result.

The real danger in typhoid fever results from the presence of the poison which circulates in the blood and which, without doubt, gives rise to the peculiar complex of symptoms recognized and known as the typhoid state. This comprises the symptoms due to some profound influence exerted principally upon the nervous system. The low muttering delirium, the deafness, dry tongue, tympanites, diarrhea, rapid pulse, and wakefulness, are all symptoms which one thinks of immediately when the word typhoid is mentioned; and any treatment that will relieve these symptoms when present, or will prevent them from appearing, must be recognized as a distinct advance on the methods hitherto employed. It is not claimed that the duration of the disease is shortened, and it is doubtful if complications are avoided, though in my opinion some of the latter certainly are. As a method of treatment, I do not think that it is an ideal one, for it does not reach the cause of the disease, nor does it attempt to do so; but, until we have a method which will have the same effect on the direct cause

of the disease that quinin has on the *plasmodium malarie*, it will remain as the most satisfactory form of treatment. To be sure, in private practice it gives rise to a great deal of trouble and expense. A suitable portable bathtub must be procured, and two intelligent nurses must be in attendance to carry out the treatment properly. This is one great objection in cases occurring in families of moderate means, living in small apartments, and such cases ought to be treated in hospitals, particularly if the patient is a heavy adult.

Especial attention must be given to the cardinal points of the treatment: These are, first, early institution of the baths; second, the water should be at a temperature of 65° to 70° F.; third, constant friction in the shape of rubbing must be employed while the patient is in the bath; fourth, the baths should be of fifteen-minutes' duration and repeated once in three hours as long as the temperature reaches 103° F. by the rectum, or as long as the so-called typhoid symptoms continue, even if the temperature is lower. Of these, the third rule, *i.e.*, the continued rubbing while in the bath, is the most important. If these cardinal points are carefully adhered to, no bad results will follow; on the contrary, the patient will feel a sense of quiet and comfort after the baths which no drug can give. A complaint of chilliness on the part of the patient is not enough to warrant his removal from the bath before the expiration of the fifteen minutes. If this chilliness, however, is accompanied by continued chattering of the teeth, or by cyanosis of the face or lips, it is better to remove him at once. An accelerated pulse is also a danger signal, but a small pulse is not. It is best to precede each bath by a dose of whisky or brandy, half an ounce being an average dose. The shivering is lessened if this is given ten or fifteen minutes before each bath, so that it can be absorbed and have some effect on the peripheral circulation. I know of but two contraindications to the use of these baths—severe intestinal hemorrhage and perforation of the bowels, in both of which complications quiet is of the utmost importance. Pregnancy and menstruation are not injuriously affected by the baths. I will show you later the chart of a female patient, seven months pregnant, who was treated in this way and who gave birth to a child at term. It has seemed to me that relapses, mild in character, are more common after bathing, but a longer experience with this method may result in a modification of this belief. Complications are certainly less severe.

I will not weary you with statistics as to the results of the different methods of treatment, but will cite a few only. Delafield found a mortality of

24.66 per cent. out of a total of 1305 cases treated in New York hospitals during the years 1878–1883. The German Hospital, Philadelphia, reports 64 cases treated from February 1 to November 4, 1890, by the Brand method without death. Brand himself published the following statistics in the *Deutsche Medicinische Wochenschrift* during 1887: Jürgensen of Tübingen treated 217 cases, with one death; Vogl of Munich, 221 cases, 6 deaths; Military Hospital, Stralsund, 1877–1882, 257 cases, 1 death; Military Hospital, Stettin, 186 cases, 3 deaths; Brand, private practice, 342 cases, 1 death; a total of 1223 cases, with but 12 deaths, a mortality of 1 per cent. Brand's own results were amazing, only one death among 342 patients treated. Not one of these twelve deaths occurred in a patient that came under treatment during the first five days of the disease. And this is a point on which Brand lays great stress, namely, the early institution of the baths. Most of our hospital patients do not come under treatment until they have been several days ill, and even amongst our private patients it is not so easy to make a diagnosis at that early period in all cases. The statistics quoted above are mainly from military hospitals, where the patients are under proper supervision from the beginning. Still, not even their results can equal those of Brand in his private practice, in which only one patient out of 342 was lost.

It has been claimed that in true typhoid the temperature drops but little after a Brand bath, while in other acute diseases there is a greater drop. This has even been mentioned as a possible diagnostic point, but I have not been able to satisfy myself that this observation is well founded. Now that we have the Widal or blood-serum test for typhoid fever, we are not dependent on any other method of diagnosis, provided the reaction takes place early enough in the disease to be of value. The Brand treatment really needs some such method of positive diagnosis as this promises to be; for it has been proved beyond doubt that it is of the utmost importance to begin the treatment as soon as possible after the patient falls into our hands in order to accomplish the best results.

How slight the change in temperature may be after the Brand baths is well shown by a patient treated during my service last autumn at the J. Hood Wright Memorial Hospital. During seven days fifty baths were given, and there was an actual rise of temperature after each. It is our invariable custom to take the rectal temperature of our patients just before the bath, immediately after, and again half an hour later. In this way we are enabled to observe quite accurately the influence of the baths upon the body temperature. In the case of another patient, how-

ever, who died on the sixth day after admission (the fifteenth day of the disease), the drop in temperature after the baths was most marked, varying from  $2.8^{\circ}$  to  $4^{\circ}$ . This case was complicated by pneumonia. Another patient, who was seven months pregnant, received twenty-six baths. She eventually recovered and was delivered at term. The fetal heart-beats were counted daily and varied from 180 per minute, when the disease was at its height, to 140 when the patient left the hospital. One of our nurses, twenty years old, contracted the disease, undoubtedly in the wards, and died from an attack of bronchopneumonia during the sixth week. She came of a tuberculous family, was herself extremely anemic, and an examination of her blood showed only thirty-five per cent. of hemoglobin. She received ninety-five baths in all, given over a period of seventeen days. The symptoms attributable to the typhoid infection were subsiding, when the bronchopneumonia invasion took place; and although her temperature for the first ten days of treatment varied from  $104^{\circ}$  to  $106^{\circ}$  F. in the rectum, she was quite comfortable, and did not become delirious until the beginning of the bronchopneumonia.

The last case I will cite is that of a patient whom I have no doubt whatever was saved by the application of the Brand baths and cold affusions to the head and shoulders. He was twenty-seven years old, unmarried, and lived in a boarding-house. I first saw him October 20, 1896, when he had an attack of *grippe*. In four days his temperature became normal and he said that he felt perfectly well. Nine days later he appeared at my office with a mouth temperature of  $104^{\circ}$  F. and a pulse of 120, when a diagnosis of typhoid fever was made. Forty-eight hours earlier he had taken a long ride on his bicycle. For eleven days he was treated at home, but he grew constantly worse in spite of all that I could do for him. I had advised his early removal to the hospital so that he might be bathed; but objections were made by a relative. It was impossible on account of the expense to bathe him at home, as two male nurses would have been necessary. The day before he went to the hospital his condition was as follows (and I might say it was only because his condition was so desperate that his friends gave their consent to his removal): Temperature by the rectum,  $105^{\circ}$  F.; pulse 150, weak and irregular. Facies drawn, skin suffused, tongue dry, and abdomen distended and tender. He had diarrhea, with involuntary evacuations, subsultus tendinum was most marked, and delirium was active at times, but continually muttering. On admission to the hospital he was immediately given Brand baths and cold affusions. He eventually recovered. This case shows better than any other I

could present the advantages of this method of treatment. Begun as it was late in the course of the disease, *i. e.*, at the end of the second or the beginning of the third week, it still was efficacious. I am convinced that early bathing here would have warded off these nervous symptoms, and the entire course of the disease would have been less severe. His temperature was at no time after admission to the hospital very high, but the patient was certainly thoroughly infected with the typhoid poison. The cold affusions were used at a temperature of  $65^{\circ}$  F., and on the second day his mental condition was better. Six days later his tongue was moist, there was but little subsultus tendinum, the abdominal distension had disappeared, his bowels had to be moved by injections, and he was passing sixty-one ounces of urine in twenty-four hours. From that time on the case was similar to one of ordinary typhoid, but later the patient developed an abscess over the sacrum which retarded his convalescence somewhat, and which was doubtless due to an infected bedsores, which originated before he entered the hospital.

## CLINICAL LECTURE.

### TRICUSPID REGURGITATION; SENILE GANGRENE; THE DIAGNOSIS OF TYPHOID FEVER BY THE AG-GLUTINATION TEST.<sup>1</sup>

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THE first patient that I show you is, as you notice, somewhat cyanotic. His respirations are a little more labored than is normal, and he sits up in bed rather than reclines. His chest is deep and well developed, his neck is that of a powerful man, and his face shows that he has been much exposed to the weather. When we examine his lips a little more closely, we notice that in them the dusky color of his face becomes more marked. His finger nails are also blue and livid. On closer inspection we find, also, that the jugular vein, particularly that upon the right side, is pulsating, and that this pulsation occurs with the systole of the heart, which indicates that the right ventricle as it contracts not only forces blood into the pulmonary artery, as it should do, but that regurgitation takes place into the right auricle, and from there into the right jugular vein. In examining the jugular vein in any case of heart disease to determine whether or not pulsation is present, you must always be careful to avoid mistaking a transmitted impulse from the carotid artery to the tissues in the neighborhood of the vein for true jugular pulsation. In this case, however, the pulsation is so marked that there can be no doubt as to its causation. The symptoms which the patient presents are chiefly those of cardiac

<sup>1</sup> A Lecture delivered at the Jefferson Medical College Hospital, February 8, 1897.

dyspnea, and we naturally proceed immediately to an examination of his heart for the purpose of determining positively what the cause of his distress may be. On listening to the apex, the spot to which we always first direct our attention in studying lesions of the heart, I hear a murmur, systolic in point of time, or in other words, occurring with the first sound of the heart, and this murmur is of a peculiar metallic sound and rather short and sharp. However, when I listen over the aortic cartilage I hear this murmur even more clearly than I did at the apex, and therefore the first impression might be that this is a case of aortic rather than mitral disease, particularly if it is borne in mind that a murmur is usually loudest at its point of origin. But the jugular pulsation makes me suspect that the man has something else than aortic disease, and that the only reason I hear the murmur loudest over the aortic area is because I have approached nearer to its seat of origin, namely, the tricuspid valve. When I place my stethoscope over the fourth interspace on the right side, I hear the murmur more clearly and more definitely than before. Indeed, it seems as if the murmur was transmitted directly to my ear from its point of origin. It is evident, therefore, from the symptoms and from the location and character of this murmur that the patient is suffering from tricuspid regurgitation. This becomes still more certain when I find that the murmur is clearly transmitted to the back upon the right side. I can also see that there is marked pulsation in the hepatic area, and, as you know, true hepatic pulsation is never present except in cases of tricuspid regurgitation. It must be remembered, however, that in some cases when the heart is acting powerfully and the liver is somewhat enlarged, and particularly if the heart is displaced somewhat to the right, the ordinary cardiac impulse may be transmitted to the liver. In order to exclude such a possibility in this case, I place one hand under the floating ribs anteriorly and the other hand over the same ribs at the side, and doing so I find marked expansile pulsation of the organ. An entirely different sensation is imparted to my hands from that which would occur if the liver were simply jarred by a transmitted cardiac impulse.

One of the most annoying symptoms from which this patient suffers is excessive cough, and, on listening to his chest, particularly at the base on both sides, posteriorly, I find a large number of moist râles, which are due to the fact that the pulmonary circulation is impaired, owing to the failure of the tricuspid valve, and as a result he has a certain amount of stasis or congestion of the lungs. At first glance it would appear that the first thing to do for the relief of the patient is to administer some narcotic or sedative that will allay to a great extent this excessive cough. It renders his condition most pitiable as it gravely interferes with respiration and circulation, and during his coughing attacks he becomes very cyanotic and oppressed, the jugular veins swelling to such a degree that it seems as though they would burst. Although we are tempted for these reasons to administer such drugs, we are forced to bear in mind, on the other hand, that these remedies, by stopping the cough, may prevent the patient from expelling from his lungs the mucus which gradually accu-

mulates in them, and under these circumstances he would rapidly drown in his own secretions.

When he entered the wards his breathing was far more labored and the action of his heart was irregular and feeble. If I had given him digitalis in the presence of an arterial pressure, already somewhat high, I would have stimulated the heart, but at the same time increased the labor of this organ by increasing the arterial pressure. I ordered for him instead of digitalis, strophanthus tincture in 5-drop doses and  $\frac{1}{100}$  of a grain of nitroglycerin three times a day, and he is greatly relieved.

You must understand that the condition of tricuspid regurgitation is a comparatively rare condition, and many of you may pass through a lifetime of practice without meeting with a case. When you do meet with one it will usually be secondary to disease of the mitral orifice or to the presence of emphysema or some other process in the lung which interferes with the transmission of the blood from the right to the left side of the heart. This obstruction results in dilatation of the right ventricle and failure of proper approximation of the tricuspid leaflets and consequent regurgitation. Very much more rarely will the condition of tricuspid regurgitation be primary, as it is in this instance, for rheumatism rarely involves these valves primarily, and in this patient we have sought in vain for any history of rheumatism, or strain, or for other cause which could have resulted in the development of the lesion.

The second case that I show you is also one of tricuspid regurgitation, which is, however, apparently secondary to a mitral regurgitation, and which is almost as interesting as the one we have just examined. In this case the murmur is not so loud, there is no pulsation of the liver, the jugular veins are not markedly distended, and the condition of the patient is moderately comfortable.

The third case is one of senile gangrene. The patient was admitted to the wards about four weeks ago with dry gangrene involving the little toe of the left foot, a distinct line of demarcation having formed just where the toe joins the body of the foot. At this time his pulse was exceedingly feeble, and an examination of his blood vessels showed them to be markedly atheromatous. His nutrition was fairly good for an old man of sixty-three, and aside from his inability to walk, and some paroxysms of severe pain in his leg about four inches above the ankle, he was otherwise in good condition. There were no abnormal heart sounds.

It was evident that we had to deal with a case of senile gangrene, because of the atheromatous blood vessels and feeble pulse, and for the reason that an examination of the urine by the resident physician failed to demonstrate the presence of albumin or sugar. In this connection the case is also of interest as illustrating the necessity of frequently examining the urine when the diagnosis is obscure, for, about ten days later, an examination revealed sugar, and another quantitative examination made a few days later revealed it again in small amounts. It is only proper for me to mention the fact that the man had no other symptoms of diabetes than glycosuria, which of itself is not, of

course, absolutely pathognomonic. He had no thirst, no excessive hunger, no itching, and no boils. The disease gradually progressed, notwithstanding stimulant treatment, but his pain markedly decreased. His third toe next gradually became gangrenous, and forty-eight hours ago, in the course of twelve hours, the entire foot, with extraordinary rapidity, became gangrenous almost to the ankle, the rapid process being a moist gangrene, in contrast to the dry or shriveling gangrene which first developed. Simultaneously with this sudden increase in the local disease the patient's temperature rose to  $104\frac{1}{2}^{\circ}$  F., and he speedily became partially comatose, answering when sharply spoken to, but sinking into slumber before he had finished his reply to the question. A few hours later, as it was seen that his coma was deepening, I decided to perform upon him what the French physicians have recently been so enthusiastic about, namely, intravenous washing of the blood, which consists in introducing a canula into a vein of the arm, and injecting very gently through it, by means of a fountain syringe, a normal saline solution, which is supposed to wash the blood of poisons and cause their elimination by the kidneys. Shortly before performing this operation I found that the patient's arm when raised remained in the position in which it was placed, or, in other words, he had developed a spastic rigidity of the muscles, and while the injection was being given he had a tonic convulsion, in which his respirations rose to sixty a minute, and were slightly Cheyne-Stokes in character. His pulse became almost extinguished, although during the early stages of the injection it was remarkably strong and full. The convulsion soon ceased, and in the course of half an hour the patient had a very profuse sweat, which saturated the bedclothing. On leaving him for the night I informed his wife and children that I did not expect him to survive more than an hour or two, but to my great surprise yesterday morning I found him quite conscious, encouraged about himself, and fairly bright. The fever had disappeared, but the gangrenous process was rapidly extending up the leg, and his feeble pulse and irregularly acting heart told me that the end was not far off.

The fourth case is of peculiar interest, not only because of the difficulties in its diagnosis, but because a comparatively new method of diagnosis has decided what the condition of the patient is. She is nineteen years of age, a light mulatto, who has a long history of general debility and anemia. A little over two weeks ago she had an attack of dizziness followed by fever, these symptoms being preceded for a number of days by general wretchedness. Her temperature has at times risen as high as  $104^{\circ}$  F., and has been controlled by either bathing or sponging, usually the latter. She has been obstinately constipated from the first, and her stools have had nothing characteristic of typhoid fever about them. There have been no spots on the abdomen, and I have not found any considerable enlargement of the liver or spleen. There has been only a moderate amount of tympanites and the tongue has not at any time been distinctly typical of typhoid. The fact that she seemed to be in

a typhoid state, however, rather pointed to the presence of enteric fever. An examination of her abdomen shows it to be but slightly tumified, the skin being perhaps a little more dusky than is natural. What is more important is the fact that the skin here is rough and appears like *cutis anserina*, a condition which I have often noticed in cases of tuberculous peritonitis, although it is of course in no way characteristic.

With the idea that it might be a case of tuberculous peritonitis, in which case an operation would be demanded, I asked Dr. Keen to see the case in consultation with me and we decided in view of its uncertainty that we had better wait until other symptoms developed, as there did not seem to be the fluid present in the abdominal cavity that is usually found in many cases of this disease. The decision as to the character of the case was determined, however, by what is known as Widal's agglutination or clumping test, which rests upon the fact that the bacilli of Eberth, which, as you know, are the characteristic micro-organisms of typhoid fever, cease their movement and become agglutinated or "clumped" when brought into contact with the blood serum of typhoid fever patients. I asked Dr. J. C. Da Costa, Jr., one of the assistants in the medical clinic, to make this test for me, and he reported that agglutination took place in less than a minute. We have decided, therefore, in view of this test, that the patient is suffering from enteric fever and not from tuberculosis. That this test is reliable is proved not only by the reports of Wyatt Johnson of Montreal, and Greene of Minneapolis, but by numerous other clinical observations both in this country and abroad. It is interesting to note, however, that in one instance both Professor Coplin and Dr. Da Costa have seen this agglutination result in the case of a patient who was not suffering from any symptoms of typhoid fever but who had a double aortic murmur. This may have been due to the fact that the patient at some comparatively recent period had recovered from typhoid fever and therefore gave the reaction.

## CLINICAL MEMORANDA.

### A CASE OF TUBO-ABDOMINAL PREGNANCY, WITH DELIVERY OF A LIVING FETUS AT THE SEVENTH MONTH.<sup>1</sup>

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HOSPITAL.

MRS. G. R. was referred to me by her physician, Dr. Thomas D. Pinckney of Williamsbridge, N. Y., who gave the following history of the case: The patient was married fifteen years ago, having a child normally a year later. A second child was born a year afterward, following which the mother suffered from peritonitis and was confined to bed for three months. Her lochial discharge continued for ten weeks. She menstruated every three weeks after getting up, and did not become pregnant again until seven years had elapsed. She then had an

<sup>1</sup> Read before the Obstetrical Section of the New York Academy of Medicine.

instrumental abortion performed when she believed herself five weeks pregnant. Considerable hemorrhage ensued, but no special reaction of an inflammatory character seems to have occurred. Menstruation began in three weeks. About five years later she again became pregnant and a second abortion was accomplished at five weeks gestation. The last abortion was followed by fever, pain, and the expulsion of "pieces of flesh." The flow ceased in two weeks. The patient said that she never felt well afterward. She had "an uncomfortable feeling in the lower part of the abdomen, chiefly on the left side." This was in February, 1896. Menstruation returned and was normal in character. During April her menstrual flow was very scanty, but it continued for eighteen days. The discharge was brown, "like coffee stain." She had a slight flow May 1st. During that month she began having sharp, cutting pains in the left lower part of the abdomen, which were sometimes followed by fainting spells and always by great exhaustion. The pain, though more dull in character, continued until August. She felt life August 13th. She had been growing larger, with a feeling of tightness in the abdomen when on her feet.

I first saw the patient in consultation with Dr. Pinckney, on Saturday, October 31, 1896. She was pale, emaciated, and the face wore an anxious expression. She had had morphin at times for a considerable period, and the mouth and tongue were dry. She was suffering severe pain, due to the fetal movements. Dr. Pinckney had heard the fetal heart, to the right of the umbilicus, some time before.

The patient was removed to the Mothers' and Babies' Hospital that afternoon. After free catharsis had been obtained, I made an examination under chloroform. The abdomen appeared enlarged to the size of a five or six-months' pregnancy. There was some slight bulging in the left lower quadrant, and along the right middle and upper quadrants. The fetus was clearly mapped out as lying in a line parallel with the maternal vertebrae, and with its dorsum to the right, the entire body being chiefly in the right half of the abdomen. The head was not outlined, the position being determined by the location of the limbs, back, and fetal heart. The fetus did not feel nearer to my fingers than in many normal cases of pregnancy I have examined. The left lower quadrant of the abdomen held a mass that could not clearly be made out. It was neither elastic, cystic, boggy, or firm. While it might be placenta, I could not affirm it. There was no vascular murmur to be heard in or about it. The cervix was soft, spongy, enlarged, and patulous up to the internal os. In connection with the anterior lower segment of the uterus, which felt soft and somewhat elastic, it suggested a pregnant uterus of about five months. The fundus could not be outlined, for reasons shown when the abdomen was opened.

Being able to exclude an intra-uterine pregnancy, the history pointing most emphatically to an extra-uterine gestation, I determined to follow a conservative course, and on November 7th, dilated the cervix, having decided that in any case it was not just to the patient to permit the pregnancy to continue. The uterine cavity was

found to be small in extent, and was lined with a soft and easily detached membrane. This was removed and the cavity lightly packed with iodoform gauze. The abdomen was then opened, Dr. J. A. Bodine kindly assisting me, in connection with the hospital staff, and the placenta was found just under the omentum, covering most of the space below the umbilical line, and somewhat to the left. The fetal surface of the placenta lay immediately beneath the abdominal wall, the cord arising from the middle of its upper surface. A layer of blood coagulum covered most of the abdominal contents in front. This was of recent origin, with older clots of a liver-like character lying between the uterus, placenta, and intestines. The head of the fetus lay just behind the fundus. Delivery was accomplished without difficulty, the left shoulder, and then the head and body being born. Under Dr. Mitchell's skilful handling good resuscitation was secured.

The child was lying outside the amnion. The placenta was extremely convex, almost balloon-shaped, with, as I have said, the fetal surface lying uppermost. False membranes bound it on all sides, uniting it to the anterior wall and fundus of the uterus on the right, to the colon posteriorly, and to the peritoneum on the left and lower anterior part. Its vascular supply came from the left Fallopian tube, apparently from the outer half, the pregnancy evidently having started in this tube. Aside from being bound down like a balloon held to the earth, the placenta was quite free above and could be considerably displaced. The hemorrhage caused by its removal was not very great. It weighed one pound, three ounces. The cord was about eighteen inches long. Iodoform gauze was packed in the left lower pelvis and the wound closed up to the gauze. The abdominal operation lasted three-quarters of an hour. The patient suffered severe shock, due chiefly to the great vital depression resulting from her prolonged sufferings. Hot saline injections were retained, and the next morning her condition seemed favorable, but at eleven o'clock she succumbed from general exhaustion.

The uterus was removed *post-mortem*. Its limitations could not be made out by abdominal palpation previous to operation, as it was covered by placenta. Its weight was 11  $\frac{1}{4}$  ounces; length, 5  $\frac{3}{4}$  inches, and width, 3  $\frac{1}{2}$  inches. The thickness of the wall through the middle plane was 1 inch, the diameter of the cavity from the external os, 4  $\frac{1}{2}$  inches; the circumference of the body, 9  $\frac{1}{2}$  inches, and the diameter of the cervix, 1  $\frac{1}{4}$  inches. The placenta was nearly spherical and was 6  $\frac{1}{4}$  inches in diameter, 1  $\frac{3}{4}$  inches thick in its thickest part, and weighed 1  $\frac{3}{4}$  pounds when the blood had been removed.

The membrane which lined the uterine cavity was lightly attached to the body wall. I have examined sections of it under the microscope, and it proves to be distinctly decidual, though possessing some of the appearances of chronic endometritis, to the extent that there are still remnants of utricular glands, rather a diminution in number, while the columnar epithelia have lost their normal regularity of shape and arrangement, being desquamated, disintegrated, or supplanted by connective-tissue

corpuscles. Large areas of the membrane were composed entirely of characteristic decidual cells, normal in structure and arrangement.

I wish to call attention here to a paper published by me in 1892, on "The Decidua in the Diagnosis of Extra-uterine Pregnancy."<sup>1</sup> The conclusions arrived at from my investigations were: In extra-uterine pregnancy the endometrium generally changes to decidua; decidual tissue is pathognomonic of pregnancy; portions of the

That this last conclusion, if true, is of very great importance in connection with the diagnosis of uterine abnormalities, cannot be denied. The history of extra-uterine gestations is one of brilliant diagnoses and operations much mixed with false diagnoses or no diagnoses. The statements made in my paper are gradually receiving the approval of investigators. Webster of Edinburg practically incorporates my arguments in his excellent work on "Ectopic Pregnancy," published in

FIG. 1.



Photograph of right hand of patient suffering from gout. (Fisk.)

endometrium may be obtained with the curette, examined with the microscope, and decidual tissue recognized if present; such tissue may be a remnant of an abortion, a part of the decidua surrounding an ovum, or due to an extra-uterine pregnancy; the use of the microscope in connection with the clinical history will determine to which variety the specimen belongs, and if to the third, will confirm the presence of an extra-uterine gestation.

<sup>1</sup> *Amer. Jour. of Obstet.*, vol. xxvi, No. 3, 1892.

1895, adding at the end: "Ayers has carefully considered this subject, and is of the opinion which I have given above, *viz.*, that decidual cells are alone due to the influence of pregnancy." Strahan, in his work on "Extra-uterine Pregnancy," which won the Jenks prize, says: "The lining mucous membrane also undergoes development into a true decidua. Indeed, it has been suggested by an authority that we should dilate the cervix and ascertain the presence or absence of the decidua as a crucial

test as to the existence of extra-uterine pregnancy. The hint might possibly prove useful, as in case it turned out to be a normal pregnancy the worst that could result would be an abortion." As this publication shortly antedates my own, the author evidently does not refer to my work, and it would therefore seem that I was not the first to propose the plan. I do not know, however, to whom

is justifiable, even if, in the former case, it subjects the patient to the possibility of an abortion. According to Toth (*Arch. für Gyn.*, Bd. iv., H. 2) rupture of the tubal sac in extra-uterine pregnancy occurs in 70.3 per cent. of all cases, mostly during the first three months of gestation. Schauta puts the mortality in non-operated cases as 68.8 per cent., and in operated cases as 23.4 per

FIG. 2.



Skiagraph of the same hand represented in Fig. 1, showing deposits of urate of sodium in the tissues contiguous to the articulations. (Fisk.)

he refers. It is satisfying, at any rate, that the procedure is approved of.

In the majority of cases in which an extra-uterine pregnancy is suspected a laparotomy will be indicated. When there is doubt as to the correctness of the diagnosis of either intra- or extra-uterine pregnancy I think a curettement for the purpose of substantiating the diagnosis

cent. The dangers from the production of abortion in normal pregnancies, brought about in the effort to make a diagnosis of suspected extra-uterine pregnancy, are slight, and in any event should not weigh against the terrible liabilities that lie in the path of overlooked extra-uterine gestations.

Curettement in cases of extra-uterine disease or preg-

nancy is liable to precipitate accidents. The *American Journal of Obstetrics* for November, 1896, reports Hofmeier and Löhlein as having observed the formation of an hematocele following curettement, which in some cases proved fatal. Hammerschlag reports a case followed by abscess of the parametrium. In preparing for a curettement of this sort, therefore, we should likewise prepare for a laparotomy, which, as in my case, could be performed at the same sitting. In the majority of cases a microscopic examination of the endometrium will not be necessary to one who is familiar with the various appearances of the lining uterine membrane.

I had hoped when I began this report to be able to present the infant alive. It lived three weeks, and after improving in appearance, losing to some extent the wrinkled, little-old-woman skin, and gaining some few ounces in weight, began to lose its nursing ability, and died from inanition. At the time of its delivery it showed the effects of lying in a surrounding medium that, while soft, was not like the amniotic fluid of a normal pregnancy. From the appearance of the placenta the fetus must have been without an amniotic covering for many weeks, as the amnion was everted, turned down, and adherent to the uterus, intestines, and peritoneum, the fetus lying amongst the intestines along the right side of the abdomen. The left foot was bent inward, resembling a talipes varus. The head, which lay between the fundus uteri and the promontory of the sacrum, was pressed somewhat out of shape, so that the parietal bones were flattened. Both these abnormal outlines largely disappeared before the child died. Its weight at birth was three pounds, four ounces.

It is interesting to note the peculiar arrangement of the circulation in the placenta. While attached on its base to a considerable surface of peritoneum, it did not draw its vascular supply from this surface, but from several vessels of from one-sixteenth to one-eighth of an inch caliber, which came from the Fallopian tube, and from a thick band of adventitious tissue, the origin of which, I think, was also from the left tube. Instead, therefore, of the chorionic villi, which were destined to form placenta at the site of the serotina pressing down against the degenerating decidua, that they might spread out over a broad base, as in a normal intrauterine development, and from which they might gain an extensive maternal surface for contact with the maternal blood, they were fed in this case by the direct entrance of large vessels into their villous ramifications. I think it can be safely said that the placenta, aside from the vessels entering the chorion, was entirely fetal in structure, which is a condition not ordinarily occurring in even tubo-abdominal pregnancy. By reason of this fact, namely, that the vascular supply arose from a few vessels, instead of from a general vascularized surface, the ordinary grave difficulty in abdominal pregnancy of removing the placenta without dangerous hemorrhage did not prevail. Even the ordinary firmness of adhesion did not exist; the placenta was easily separated, with the exception of some strong bands of adventitious tissue, the peritoneum being left therefore in a favorable condition for recovery.

## PHOTOGRAPH AND SKIAGRAPH OF A GOUTY HAND.<sup>1</sup>

By A. L. FISK, M.D.,  
OF NEW YORK.

R. F., male, aged forty-six, was referred to my class in surgery from the medical class at the New York Hospital in December last, to obtain, if possible, some surgical relief. He is a natural born American, as were both his parents. For many years his father suffered exceedingly with rheumatism. The man's occupation, so long as it was possible for him to follow it, was that of peddling oil from a wagon throughout the rural districts. He has always been in the habit of drinking freely of the malt liquors, but never of spirits. His first attack of gout was during the winter of 1876-77, in the great toe of the left foot; later in the same season a second attack occurred in the great toe of the right foot. Three years afterward, in 1880, both knees were affected; and, in the autumn of 1882, both wrists and hands were the seat of the disease. This attack was so severe that he was confined to his bed for four months. The gouty deposits in the hands appeared first in the left, which now is completely crippled, the fingers being bound down in the palm. The photograph and skiagraph, which were taken early in February last, show the condition of the right hand. The skiagraph demonstrates the fact, most perfectly, that the deposit of salts has occurred entirely in the tissues surrounding the bones and the joints, and not in them. This furnishes a means of differential diagnosis between gout and arthritis deformans.

## MEDICAL PROGRESS.

*Operation in Lumbar Fractures.*—ENDERLEN (*Deut. Zeitschr. für Chir.*, Bd. xliii, p. 329) treated a case of fracture of the sixth dorsal and first lumbar vertebrae with anesthesia and paralysis of the sphincter. Six months after the accident the patient died of phthisis. Transverse sections of various parts of the column revealed slight damage to the fifth and sixth dorsal vertebrae, as well as a considerable fracture of the first lumbar vertebra, the body of which had penetrated the spinal cord to the depth of four millimeters. The microscopic examination of the cord in this situation revealed an almost complete transverse injury, and above this an ascending degeneration.

Making use of this case in connection with the many cases of fracture of the spinal column in the lumbar region, recorded in medical literature, the author does not favor operative interference unless there is present a comminuted fracture or complicated fracture of the arch of the vertebrae, or where there is evidence of the penetration of the bone-fragments. Where these complications are not present it is an extremely difficult matter to make a differential diagnosis between simple concussion and trauma. In both instances early operation is contraindicated. Not even for the evacuation of a blood clot exerting pressure on the cord is an operation advisable. Experience proves that even after the lapse of three months from the recep-

<sup>1</sup> Read before the Harvard Med. Soc. of New York, March 27, 1897.

tion of an injury an almost complete rehabilitation is by no means a rarity. In one case recovery has been established even after the considerable lapse of  $2\frac{1}{4}$  years. In cases where operation has been followed by good results, it remains doubtful whether the merit is due to the operation or the *vis medicatrix naturæ*.

The cord can tolerate a certain degree of pressure, but there are also authentic cases in which, after removal of callus masses and fragments of bone, to the pressure of which the cord has been a long time subjected, recovery has resulted. Even in these latter cases early operative interference is not advisable and three weeks, at least, should be allowed to elapse before resorting to surgical measures. As regards the seat of fracture, numerous autopsies establish that the body of the vertebra is the seat of injury in ninety-five per cent. of the cases. Of the cases operated on, fractures of the arch have been found to exist almost as frequently as those of the body of the vertebra, from which the writer concludes that fractures of the body are always to be considered as of serious import, while fractures of the arch offer more tangible points of vantage to successful surgical manipulation.

**The Cause of Death after Extensive Burns.**—AJELLO and PARASCANDOLO (*Gazz. degli ospedali e delle clin.*, 1896, No. 83) conclude after elaborate investigations that the cause of death after burns is a toxic ptomain, and is not due to the toxins which may be produced in the burn by bacteria, nor to anatomic changes which the blood-corpuscles or the organs of the burned area may have undergone. They found that if the same portions of the body be excised and then burned that the injections of the fluids derived from them killed healthy animals, with the same symptoms as were exhibited by animals dying from the effects of their own burns. If the burned portions of an animal were quickly removed it exhibited none of the specific symptoms of burning and death therefrom. These symptoms were also avoided by thorough blood-letting; followed by immediate transfusion of healthy blood or artificial serum.

**The Fate of Epithelial Masses Experimentally Introduced into the Circulation.**—During the Congress of Italian Surgeons held in Rome in October last, SGAMBATI (*Centralbl. für Chirurgie*, No. 51, 1896) read a paper on this subject. Proceeding on the supposition that metastases in carcinoma are developed from little masses of the tumor carried along in the blood or lymph circulation, he attempted to reproduce these symptoms artificially, in order to see whether normal epithelium would lodge and grow in the same way as the abnormal cancer cells. For this purpose he selected the submaxillary gland and the testicle of dogs, preserved the integrity of their epithelium in a warm normal salt solution, and introduced little masses of the tissue into the veins of dogs. After a certain time the dogs were killed and the hemorrhagic infarcts in their lungs were examined microscopically. In most cases the embolic tissues were found to be more or less degenerated. In a single case, in which the dog was killed on the fourteenth day, there was a multiplication of the testicular epithelium which formed the embolus, present-

ing the appearance of a tubular adenoma. The thrombus in which it lay only partially obstructed the vessel lumen, and to this favorable situation the author was inclined to attribute the cell-growth. In the case of ordinary cancerous metastases, where only a few cells are swept away at a time, the nutritive conditions would be equally or even more favorable.

**Limitation of Rotation after Fracture of the Forearm.**—

From a study of eighty-two cases of fracture of the forearm MINTZ (*Centralbl. für Chirurgie*, No. 52, 1896) concludes that resulting limitation of rotation may be due to: 1. Changes in the soft parts (ligamentous or muscular). 2. Changes in the bone. The latter are of three kinds:

(a) Hypertrophic callous. (1) Union between radius and ulna. (2) Pseudarthrosis. (3) Lateral splinters of bone or masses of callous. (b) Excessive callous with dislocation of fracture ends. (c) Dislocation of fracture ends. (1) Exogenous form of dislocation described by Volkmann, and consisting in the bending of the radius over the ulna. (2) Endogenous, a form of dislocation described by Schmidt, and consisting in the union of the lower radius fragment in the position of pronation or the opposite.

The author makes clear the fact that fractures of the forearm must be individually studied, and not all treated alike according to a preconceived idea.

**The Cause of Warts.**—SCHAAL (*Arch. f. Dermatol. und Syph.*, xxv, p. 207) saw a wart develop on his own finger in eight days, at a point where a number of minute glass splinters had entered the skin, but without producing any apparent wound. The wart was treated with caustic alkali and removed entire, and the splinters of glass were found in its base. The author raises the question whether all warts do not have a similar etiology. They occur usually on exposed portions of the body and especially in children whose tender skin, and their disposition to play in the sand and dirt, give abundant opportunity for the local irritation of the papillæ by foreign bodies.

**The Surgical Treatment of Perforating Typhoid Ulcer.**—

FINNEY (*Annals of Surgery*, March, 1897), from a study of fifty-two cases of perforating typhoid ulcer treated by operation (six of these are now reported for the first time), finds that:

1. Of all the so-called diagnostic signs most reliance is to be placed upon the development of a severe attack of abdominal pain coupled with nausea and vomiting, and a marked increase in the number of white blood-corpuscles.

2. The surgical is the only rational treatment of perforating typhoid ulcer.

3. There is no contraindication to the operation, surgically speaking, save a moribund condition of the patient.

In performing this operation three things are to be done: First, to find and close the perforation; second, to empty and cleanse the peritoneal cavity; third, to effect and maintain a thorough drainage. The most satisfactory operation is performed as follows: An oblique incision six inches long is made in the right iliac region. The cecum, which is always to be recognized by its longitudinal bands,

is the guide to the ileum. From it as the starting point the coils of ileum are systematically drawn out through the abdominal wound, while one assistant wipes the intestine as it is withdrawn with gauze wrung out of a hot salt solution, and another assistant keeps it warm by means of hot towels. All of the affected intestine, even to the duodenum if necessary, should be thus treated. The whole of the peritoneal cavity should then be wiped systematically with gauze wrung out of hot salt solution, attention being directed especially to the pelvic region. Usually irrigation is unnecessary, but the intestines before they are replaced should be thoroughly irrigated and wiped dry. The worst coils should be last replaced and the sutured portion left next to the abdominal wound. Bismuth gauze should be packed around this coil and introduced into the pelvis if necessary. By this means good drainage is insured and escape of feces is provided for in case of extravasation. The abdominal wound should be tightly closed except where the drains escape, and if distension follows operation the bowels should be moved early and thoroughly by calomel in broken doses, followed by salts, and, if necessary, a high turpentine and soap-suds enema. If stimulation is necessary, more reliance is to be placed on hypodermics of strychnin, enemata of several ounces of hot, black coffee, and the transfusion into the cellular tissues under the breast of a quart or more of the normal salt solution, than on any other remedies.

**A Clinical Report of the Chemical Examination of Two Hundred Cases of Human Breast-Milk.**—ADRIANCE reached the following conclusions (*Archiv. of Pediatrics*, February, 1897), by an interesting series of experiments: Excessive fats are due to an excess of albuminous food, which causes vomiting, diarrhea, and loss of weight, or failure to gain at the proper rate. It may be treated by limiting the amount of nitrogenous elements in the mother's diet. Excessive proteids are due to lack of exercise. This is especially liable to occur in nervous women. It is shown by vomiting, diarrhea, with yellow or green stools, containing curds, and loss in weight, or failure to gain. By regulating the exercise of the mother the elements of the milk can be brought to the normal proportions with a consequent disappearance of the gastro-intestinal symptoms.

During the colostrum period the proteids are very apt to be in excess. This, however, usually passes off in a few days, and seldom requires treatment. Should it persist, it is best to pump the milk, and dilute it with water; or, if this be impracticable, to have a wet-nurse for the child. The influence of prematurity is well marked; the proteids are much exaggerated, and extend over a longer period than in ordinary colostrum milk. Deterioration of human milk is marked by a reduction in the proteids and total solids, or in the proteids alone. This takes place normally in the latter months of lactation. If it occurs earlier it may be the forerunner of the cessation of lactation, or it may be improved by well-directed treatment. Unless a proper addition is made to the infant's diet, the diminution of proteids will be accompanied by malnutrition and gastro-intestinal symptoms.

**Serum Test for Diagnosis of Typhoid Fever.**—In the March number of the *Amer. Jour. of the Med. Sciences*, BIGGS and PARK detail the results obtained in experimentation with Widal's serum test in typhoid fever as carried on in the laboratories of the New York Health Department. In 108 cases in which, after the completion of the illness, a definite diagnosis of typhoid fever was clinically made, a marked immediate reaction occurred in the first test in seventy per cent. Of the nineteen cases which were examined in the first week, the percentage was nearly as high—namely, sixty-three per cent. The majority of cases which gave no reaction by the fourteenth day failed to give at any time a definite reaction. But in two instances reaction at first appeared at the middle of the fourth week, when the temperature had become nearly normal.

One case was of great interest, as proving that the blood of the typhoid patient may never throughout the whole illness have sufficient agglutinating properties to give a definite reaction in the usual dilution. This case presented the usual symptoms and course of typhoid fever, and by puncture of the spleen typhoid bacilli were obtained.

It was demonstrated that in a certain proportion of cases other than typhoid, there occurs a delayed moderate reaction in a one-to-ten dilution of serum to blood, but very rarely under such circumstances does this reaction occur within fifteen minutes.

It seems probable that a positive diagnosis may be reached in fifty per cent. of cases of typhoid fever and a probable diagnosis in half the remaining cases. While the absence of the reaction for several examinations does not exactly exclude typhoid fever, yet in doubtful epidemics where several cases can be examined the absence of reaction in all of them would clearly indicate that the epidemic was not one of typhoid. For further details the reader is referred to the original article.

## THERAPEUTIC NOTE.

**Causes and Treatment of Disagreeable Gustatory Sensations.**—HERZFELD (*Therapeut. Monatshefte*, Jan., 1897) disputes the commonly accepted opinion that abnormal gustatory sensations are due to digestive disturbances. Aside from those cases due to affections of the teeth, pharynx, and tonsils, he holds that the crypts in the tonsils often contain masses having a fetid odor. A simple inspection may not suffice to reveal these masses, as they may be situated behind the anterior pillar. With an instrument similar to a crochet hook their presence is easily demonstrated, and the crypts may be slit up in order to prevent a recurrence of the trouble. In other cases the source of the bad taste lies in the posterior nasal cavity, where sometimes a pouch (*bursa pharyngea*) secretes a mucopurulent liquid. In such cases a slight operation will cure the bad taste. Nasal affections, affections of the antrum of Highmore, etc., are further responsible for some of these cases. The author warns against a too hasty conclusion that because of disturbed gustatory sensations the stomach is necessarily at fault.

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SATURDAY, APRIL 17, 1897.

## IN EPOCH IN MEDICAL EDUCATION IN NEW YORK.

THE announcement was recently made to the medical world that the University Medical School had legally become the Medical Department of the New York University, and had passed over all its goods and chattels and their unrestricted control to the safekeeping of the authorities of the University. Following closely upon the heels of this intelligence comes the statement that Bellevue Hospital Medical College, in response to an invitation from the University, has done the same thing. Hereafter these two friendly rivals will nestle in the bosom of a common *alma mater*, will be consolidated into one institution, and be known as the New York University Bellevue Hospital Medical College.

The students and alumni of the former institutions, which now pass out of existence, are expected to embrace each other as brothers, accept their foster mother, and be enrolled and known as alumni of the New York University. During the present year the combined enrollment of the two schools has numbered 1057 students, while the combined alumni number 11,434. There are 116 members of the two faculties. In the new arrangement they place them-

selves entirely under the direction of the University Council, and rely upon that body for their future selection and compensation. It is rumored that they will all place their resignations in the hands of the Council, leaving that body untrammelled in its selection of a faculty.

In this consolidation the University acquires ownership of all the property, rights, leases, and privileges of both institutions, and assumes all their obligations. The terms of the transfer are absolutely without condition.

It is impossible to estimate the importance of this action, or to conceive of the boundless possibilities it has in store for the advancement of medical education in New York City. By this arrangement there will be secured a faculty composed of two bodies of professional men, each one of which has been amply sufficient for the teaching requirements of a successful and prosperous school.

The financing of a medical school is a source of anxiety, or, at least, of constant care. The professors will now be relieved of this responsibility, and their only concern will be to see that they are provided with proper teaching facilities. This will add vastly to the *esprit de corps*, and the large number of teachers will permit of more individual, personal work. An opportunity is now afforded to banish forever the old system of didactic lectures, and introduce methods of instruction along more modern and improved lines. The duty of a college professor is no longer considered fulfilled when he has monotonously and automatically gone over a subject in the presence of three or four hundred drowsy, listless, inattentive students. The successful teacher is the one who throws such a charm about a subject as to arouse the interest and ambition of the student to pursue investigations on his own account, and then places within his hands instruments of precision, and provides methods of investigation which shall enable him to work out for himself the ultimate finalities of the subject. To educate is to draw out latent powers, not to fill up empty reservoirs.

In this unification of forces the lecture halls and work rooms will doubtless be ample for all requirements. The Loomis and Carnegie laboratories are already well equipped, and offer facilities for the most thorough training. The hospital advantages are great; the buildings are conveniently located;

and the clinical material sufficient to meet all demands.

Last, but not least, the combined alumni of these two institutions, numbering as they do over eleven thousand active physicians, scattered all over this broad land, will watch with jealous eye the progress and success of their *alma mater*, and constitute a strong arm of support. It has been for some time apparent that medical education in America has reached a point where it needs endowments to carry on the work, in accordance with the demands of modern medical requirements. Since the proprietary element is now eradicated from the University Bellevue Hospital College, it is the expectation that gifts will flow into the treasury of the New York University for the aid of its medical department. The advantages already offered, and those which will be offered in the immediate future, will tend more strongly than ever to attract students to this center of medical instruction.

The four-years' course is already established. To make this additional time profitable to the student, it must be spent in carefully directed investigations in hospital, laboratory, and clinic. These practical facilities can now be more fully than ever provided in this great medical institution of New York.

#### AGAIN, THE INDECENT ADVERTISEMENT.

THE boy who is bad but not irretrievably wicked, will avoid the person whom he has insulted or injured, if not from cowardice, at least from a sense of shame at meeting face to face one to whom he owes an apology. We have often wished that the quack would show something of the same delicacy and would not have his advertisements bestowed upon his decent professional cousins as impartially as upon the laity whom he seeks to victimize. Yet, so far as we can judge, our doorsteps are as freely supplied with information regarding the folly of youth and the means of rejuvenation, with the hints as to how to save doctors' bills, and with the advertisement of the monthly regulator and the ladies' syringe, as any of our neighbors'. We note particularly a recent menstruation circular, which shuns the prevalent idea of internal medication as irrational, and tells how the monthly flow may be reestablished by means of injections, using, of course, a particular brand of medicated tab-

lets. We agree in most respects with the opinions of the advertiser, especially with the conspicuous notice that such injections are very likely to produce miscarriage in case the "lady" should happen to be pregnant. Such a complication would, of course, lead the aforesaid "lady" to omit the use of a syringe. We have all noticed in practice how many girls and married women consult us because of irregular menstruation due to constitutional causes, or to getting the feet wet, or to some nervous reflex, and have often observed the rarity with which supposedly pregnant women apply for the restoration of menstruation. Therefore, we are able to appreciate the number of cases of innocent amenorrhea which our advertising cousin will relieve and, in our mind's eye, can see the young matron making an unerring diagnosis of pregnancy in the early weeks and accordingly putting away her "boon to women" until pregnancy and lactation shall have been passed. But this sort of advertising will continue until the laity will appreciate the magnitude of its evil results and support the medical profession in the attempt to bring it within legal control. We would even go so far as to suggest that the good ladies who are endeavoring to raise the age of consent till a woman has gray hairs, would find a more practical, if not an ethically superior matter for their consideration, in the indecent pamphlets and suggestive newspaper advertisements of quacks.

In this connection, we take the liberty to criticise the advertisement of a physician who is not a quack but a professional man in the best standing before the law, who is widely known as a benefactor of the race, and who is a pillar of the church which he attends. We notice this man's advertisement of a third of a column in our daily paper. At the head of the advertisement is a cut representing the angel of death fleeing from an open door, in which stands a woman pointing to a crucifix between the panels. The text alludes to the "Biblical story of the pass-over," and draws the moral that "The chosen people are the healthy people. Nine-tenths of the deaths among children are due to the ill-health of the mothers during the period preceding motherhood." Or, perhaps it would be more correct to say that the real moral is that women should buy the doctor's medicine "at any drug store," and should also get his book, containing plain talks on all sorts of ailments, made plainer by illustrations.

What adequate comment can be made on such a case? Here is a man whose status as a physician, as a member of society, as a support of his church, is equal to that of any reader of these words. He lives in an age when the tolerance of persons with deep religious convictions ought to be equaled by the respect shown by those who lack these convictions, for the objects and writings which the former venerate. Yet he uses the sacred writings of Jew and Christian to draw dollars to his safe, an enlightened community reads his advertisement with equanimity, a liberal church accepts his offering, and only a jealous medical profession, following antiquated precedents, is stirred to feeble protest.

## ECHOES AND NEWS.

**Anti-spitting Ordinances.**—Rochester, N. Y., and Columbus, Ohio, have passed ordinances prohibiting expectoration in public conveyances.

**Nurses to Start for Crete.**—Mrs. Ormiston Chant, the social reformer, and six nurses, started from London, April 8th, for the Island of Crete.

**Appointment.**—Dr. Robert Abbé has been appointed to the newly created position of assistant surgeon to Roosevelt Hospital, with a seat in the Medical Board.

**Contagion Conveyed by Letter.**—A case of scarlet fever in the town of Clinton, Me., is believed to have originated from a letter written by a relative of the sick man in the West who had been suffering from the disease.

**Medical Requirements.**—An amendment to the Nebraska medical practice act, adopted by the Nebraska State Senate, requires a four-years' attendance at a medical college before a license can be granted. The present law requires three-years' attendance.

**Experimental Tuberculosis in Chickens.**—Mafucci has shown experimentally that tubercle bacilli inoculated into hen's eggs before incubation remained quiescent during the period of embryonic development, but caused the death of most of the chicks from tuberculosis in three weeks to 4½ months after birth.

**The New York City School Inspection.**—In the report for the first week of five school days of the medical inspection of schools, conducted under the direction of Dr. A. Blauvelt, the total number of children examined was 13,176. The number excluded in all was 569; 481 from the public schools, 88 from the parochial schools.

**Increase of Insanity in England.**—The report of the Commissioners of Lunacy to the Lord Chancellor, on insanity in England and Wales, has just been issued in England. The figures given by the commissioners show that the numbers of reported lunatics increased from 36,762 in

1859 to 96,446 in 1896, and the ratio from 18.67 to 31.38 per 10,000.

**Why Fashions in Surgery Change.**—Lawson Tait says that the only way an operation can be estimated justly is to ascertain its remote results. "It would matter very little if an operation had no primary mortality at all if it left the majority of its subjects maimed, halt, or insane, at the end of two years. The absence of injury in secondary results is the cause of so much change of fashion in surgery, to say nothing of medicine."

**The Excursion to Moscow.**—At the suggestion of the American Committee of the International Medical Congress a special tour to Moscow has been planned under the supervision of Messrs. Thos. Cook & Son. The party will leave New York July 3d, and will be divided in such a way as to enable any member of it to choose one of three itineraries, each one embracing a very satisfactory tour of Europe. A considerable reduction in ordinary rates will be secured by this arrangement.

**A Municipal Laboratory for New York City.**—A bill has been introduced in the State Legislature providing for a municipal laboratory in New York city, the directors to be appointed by the mayor, one to be a graduate in medicine and an expert in chemistry, and one in bacteriology; salaries to be not less than \$3000, nor more than \$15,000. There may be an assistant in each department at a salary of \$2500. All investigations desired by the Coroners or the District Attorney shall be made free of charge.

**Brooklyn Water Supply.**—Health Commissioner Emory of Brooklyn has submitted to Mayor Wurster a report showing in detail the filthy condition of the sources of Brooklyn's water supply. The commissioner sounds a warning to the city authorities, and tells them that with the experience of last summer fresh in mind, they cannot afford to disregard the admonitions received from the biological and chemical experts. These, briefly, have shown that at five or more places along the watershed it is common to find bacteria which point to sewage inflow.

**Speers Memorial Hospital at Dayton, Ky.**—The Speers Memorial Hospital in Dayton, Ky., a city of about eight thousand inhabitants, is rapidly nearing completion, and will be one of the best-equipped institutions of the kind in the West. This institution was founded in July, 1895, by means of a fund bequeathed by the late Mrs. Elizabeth Speers, who died May 13, 1894. The fund aggregated about \$100,000. The building has thirty-two rooms besides the public wards, of which there are four, two in each wing, capable of accommodating twelve patients.

**Mortality in the French Navy.**—At the Paris Academy of Medicine MM. Vincent and Burot recently presented some statistics of mortality in the French navy. For the five years 1891-95 out of 198,313 men there were 2253 deaths, or 11 per 1000. Tuberculosis was responsible for a quarter of this mortality, and was found to be more frequent in the navy than in the army. Malaria, dysentery, and cholera also showed a heavy death-rate, and so did accidental deaths and drowning. The mortality

among the medical officers and dispensers was 19 per 1000.

**Death of a Medical Centenarian.**—Dr. De Bossy, of Havre, France, died there on March 24th. He was born in Paris during the Reign of Terror, April 9, 1793, and had reached the age of 104 years. He received his early education and began his medical studies in England, but finally settled in Havre, where he continued to climb steep stairs to sick rooms and minister to his patients after he had passed his century of years. He said of himself that he had throughout his life used everything, but abused nothing. Dr. De Bossy's father lived to the age of 108.

**Obituary.**—Dr. Charles Stammer, one of the leading physicians of Schenectady, N. Y., and a prominent member of the American Medical Association, died April 7th, aged sixty-five years. Death was due to apoplexy.—Dr. J. H. Walton, a well-known physician of Dubuque, Iowa, committed suicide in Lincoln Park, Chicago, April 4th. He was walking along one of the driveways with a friend, when suddenly he drew a razor from his pocket and cut his throat, dying in a few minutes. No reasonable cause can be assigned for the act.—Dr. Morvan died recently in France, aged seventy-three years. He was the first to describe the group of clinical symptoms known as Morvan's disease, which he considered a form of syringomyelia.

**Things not Always What They Seem.**—From Detroit comes a story which we hope is true about an efficient but illiterate domestic servant who was brought into serious, but happily not fatal, danger by her undue confidence in the deductive system of reasoning. The woman suffered from rheumatism, and one rainy day last week, when her aches were especially severe, she came across a bottle labeled with a few written words and a print of skull and crossbones. Immediately she reasoned that the bottle contained a medicine for complaining bones, and she proceeded to take a heroic dose of its contents. Two doctors and a stomach pump saved the woman's life, but she no longer sees unity of design in the universe and her trust in logic is gone forever.—*N. Y. Times.*

**God and the Microbes.**—A fairy story written by an authoress of the tender age of six years has just appeared on the shelves of the book venders. The little fairies therein depicted in due time become ill and require the services of a physician. When the fairy doctor arrives he discovers that one has scarlet fever, another diphtheria, and a third typhoid fever. He tells the fairy godmother all about microbes and germs, and instructs her to boil the water. The fairy godmother says she does not understand; if the germ has the fever, why doesn't the fever, which kills little boys and girls, kill the germ? And if the germ doesn't have the fever, how can it give the fever? How can a thing give a thing it doesn't have? The fairy doctor says, "Nobody knows but God."

**Kissing the Book.**—Acting under orders from the authorities of the town of Bradford, England, a chemist has

just made an examination of a Testament which has been used in the Ripon court for sixty years, and which is said to have been kissed by 40,000 people. The analysis was made with a view to ascertaining what danger there is in the practice of "kissing the book." No germs of typhoid fever, tuberculosis, or diphtheria were found. The chemist identified seven species of micro-organisms which cover the three divisions of the fungi order. The only germ of a dubious character was one which is usually found on wounded and diseased skin. Although this germ is not necessarily harmful, there are conditions in which it might produce unpleasant complications, and the chemist said he would not kiss any surface upon which they were spread.

**Prosecution for Practising Medicine Without a License.**—A curious little problem in law and ethics came up for solution recently at Hazleton, Pa. A man was arrested there for practising medicine without having been registered, as the law of Pennsylvania and most other States requires. He confessed his guilt and admitted that he was well acquainted with, and approved of, the regulation he had violated. Then he proceeded to assert, and to prove by documentary evidence, that he had been graduated from the Medical School of the St. Petersburg University, and had practised in the Russian capital for years. He was therefore quite eligible for registration in this country, but on reaching Hazleton he had found himself penniless and without friends. After he, his wife, and his three children had gone hungry for several days he determined to risk imprisonment in order to supply the wants of his family and incidentally to earn enough money to pay the register's fee. Immediate denunciation and arrest followed. Investigation showed that the man's story was true in every particular. His wants were supplied and he is now openly and successfully following the profession, the practice of which had made him a technical criminal.—*N. Y. Times.*

**Special Exercises at the Jubilee Meeting of the American Medical Association.**—The Committee of Arrangements has set aside an hour on the second day of the meeting for exercises to commemorate the founding of the Association in Philadelphia in 1847. Dr. Davis, who is recognized by all as the moving spirit in the enterprise, will read a short paper, giving an account of the origin of the Association, and how the objects for which it was founded have been attained. In addition to the address of Dr. Davis there will be two or three other short addresses to add to the interest of the occasion. The founders of the Association believed that it would raise the standard of medical education and combine the medical profession of the United States in one body. The committee has taken steps to secure the attendance at the meeting of the Presidents of the State Medical Societies and the Presidents of the State Boards of Medical Examiners as an illustration of the success attained through the instrumentality of the Association. Of the original members of the Association there are still living Dr. N. S. Davis, of Chicago; Dr. Alfred Stillé, of Philadelphia; Dr. John B. Johnson, of St. Louis; and Dr. David F. Atwater, of Springfield, Mass.

The committee hopes that these gentlemen will all be present to take part in the meeting.

**Commissions for the Doctor.**—A subscriber of the NEWS has sent us the following circular which he received recently, and which, he significantly remarks, speaks for itself:

"Philadelphia Optical Company, registered, Manufacturing Opticians, 87 King street East, Toronto.

DEAR SIR: If you have not been writing prescriptions for spectacles we would like to have you begin. You can do much good by doing so, and it will be profitable to you. All you need to do is to write the patient's name on the blank we send you, and we will give you . . . of what the patient pays us for the glasses. We have added to our store our own grinding machinery, and can now grind to order any glass for any complicated case in a few minutes. In the past the writing of doctors' prescriptions has been confined to eye specialists. We have in our house an expert optician graduate in optics who tests each eye with the Javal Ophthalmometer (*sic*) and the Ophthalmoscope (*sic*). If you send your patients to us we will benefit them with glasses at a reasonable price, and give you . . . of what they pay us. This will be all clear profit to you. And you get credit of prescription. We have everything in spectacles in stock, from the cheapest to the best. Hoping you will give us a trial, we remain, Yours truly."

## CORRESPONDENCE.

### A BOOK REVIEW CRITICISED.

To the Editor of the MEDICAL NEWS.

DEAR SIR: In glancing over the pages of your journal of January 16, 1897, my attention was called to the review of Dr. McGillicuddy's book on "Functional Nervous Diseases in Women." Your reviewer so completely condemned the book from every standpoint that my curiosity was aroused and I determined to read it and judge of its merits for myself. Its perusal has led me to feel that your reviewer has either not read the book, with the modest claims made in its preface, or else his condemnatory utterances result from inability to appreciate its good features, or from personal prejudice.

His first criticism would seem to be answered by the fact that there has been no similar publication in the English language.

His second criticism—that much of what the book contains "has appeared over and over again in medical journals, and in monographs and text-books on general nervous and gynecological diseases"—seems to me to be commendatory rather than derogatory, inasmuch as such a compilation gathers much widely scattered material, together with the author's own personal investigations into one compact volume.

As to its typography and chromolithographs, the standing of the publishers will answer for that.

Yours truly,

WENDELL C. PHILLIPS.

NEW YORK, March 10, 1897.

## OUR PHILADELPHIA LETTER.

[From our Special Correspondent.]

PENNSYLVANIA HOSPITAL'S NEW CLINICAL AMPHITHEATER—ACADEMY OF SURGERY—COLLEGE OF PHYSICIANS—PATHOLOGICAL SOCIETY—DR. H. A. KELLY—DR. J. W. WALK—DEATH OF DR. ENGEL—THE D. HAVES AGNEW MEMORIAL PAVILION—DR. LUDWIG HEKTOEN—CITY BACTERIOLOGICAL LABORATORY.

PHILADELPHIA, April 10, 1897.

WITH the opening of the new clinical amphitheater and receiving wards of the Pennsylvania Hospital a notable addition to Philadelphia's hospitals has been made. The amphitheater, constructed of tile, marble, and iron, and erected upon a steel substructure, occupies a large part of the new building, and is thoroughly equipped with every modern appliance for insuring surgical asepsis; it will seat several hundred students, and is admirably adapted for the purposes for which it is intended. In addition to men's and women's receiving wards, isolating rooms, and a number of small operating rooms, elaborate sterilizing and filtering plants are contained in the new building. The first public clinic was held there on April 3d.

The last monthly meeting of the Philadelphia Academy of Surgery, held on April 5th, was devoted to the consideration of tetanus antitoxin. "A Case of Traumatic Tetanus in which Antitoxin was Used" was reported by Dr. W. G. Porter. Dr. C. B. Penrose read a paper on "Tetanus following Trachelorrhaphy and Perineorrhaphy in which Antitoxin was used without Success." Dr. T. S. K. Morton reported a "Case of Tetanus Treated by Antitoxin as well as by Blood-letting and Saline Infusion." Dr. W. J. Taylor mentioned a case of tetanus occurring in his practice; in which he had administered antitoxin, and although the case did not terminate fatally, Dr. Taylor was inclined to think that it was one in which the patient would have recovered without the use of the remedy. From the discussion of the papers it was apparent that tetanus antitoxin has not yet been established on a firm therapeutic basis.

A stated meeting of the College of Physicians was held on April 3d, at which many valuable papers were read and discussed. One presented by Dr. J. B. Deaver on "Some Mooted Points in the Pathology of Appendicitis, with Especial Reference to the Condition known as Appendicitis Obliterans," provoked considerable discussion, and proved a rare addition to our knowledge of this form of the disease. In the single instance of obliterative appendicitis out of over forty cases of other forms of the disease upon which Dr. Deaver had operated during the last three months, the appendix was converted into a fibrous cord; in the other cases there was a contraction of the lumen of the appendix on the proximal side. In the discussion of this paper Dr. Hearn said that every case of appendicitis which he had seen had been preceded by some error in diet, with which Dr. Harte, who also discussed the paper, agreed. Dr. C. K. Mills facetiously remarked that from the education of the laity generally, and from the tendency of certain neurotics to exaggerate and to imagine ills, some cases might almost be called "cerebral appendicitis."

Dr. H. A. Hare, in a paper dealing with "The Rapidity of the Elimination of Drugs and its Influence upon Their Administration," discussed the inconsistency of giving, as is often done, three or four daily doses of a drug like prussic acid, which is very rapidly absorbed and eliminated; and of administering in rapidly succeeding doses drugs like digitalis and the bromids, whose assimilation and elimination is slow. Dr. Hare concluded that drugs should be administered in doses sufficient to produce the effect sought for, and that this condition should be maintained by smaller doses at intervals depending upon the rapidity with which the drug in question was eliminated. Other papers at this meeting were read by Drs. F. A. Packard, J. Dutton Steele, Arthur Van Harlingen, and J. B. Roberts.

At a meeting of the Philadelphia Pathological Society, held on April 8th, Dr. D. L. Edsall reported an instance of an unusually large gumma of the kidney, and exhibited the specimen from the case. Dr. Edsall and Dr. T. S. Westcott read a paper on "Tuberculous Pericarditis." Dr. M. H. Fussell discussed "Gangrene of the Lung," and reported "A Case of Hemorrhagic Purpura." An instance of cerebral hemorrhage occurring in a girl nineteen years old was quoted by Dr. J. P. Tunis.

Dr. H. A. Kelly, of Johns Hopkins University, delivered a lecture by invitation on "Eras in Gynecology" at the Medico-Chirurgical Hospital, on the evening of April 3d. At the conclusion of Dr. Kelly's address he was tendered a reception by Dr. W. E. Ashton, at which the faculty of the Medico-Chirurgical College and many prominent Philadelphia medical men were present.

Dr. James W. Walk has been appointed by the Mayor a member of the Board of Health to fill the vacancy caused by the death of Dr. P. D. Keyser. Dr. Walk resigned from the Board of Charities and Correction in order to accept this position.

Dr. Hugo Engel died suddenly of pneumonia on April 5th, at the age of fifty-two years. Dr. Engel was formerly connected with the teaching staff of the Jefferson Medical College, of which he was an alumnus, and at one time occupied the chair of nervous diseases at the Medico-Chirurgical College.

For equipping and furnishing the new D. Hayes Agnew Memorial Pavilion of the University Hospital the State Legislature has been asked to give \$90,000, and for maintenance an appropriation of \$50,000 annually for two years is sought for. By the opening of this new wing 160 additional beds are added to the hospital.

A reception is to be tendered Dr. Ludwig Hektoen, of Rush Medical College, Chicago, on April 22d by the Philadelphia Pathological Society. Dr. Hektoen is to deliver an address before the Society on "The Lesions of the Inter-cellular Substance of the Myocardium," on the same evening.

During the past year 2385 cultures from cases showing evidences of diphtheria were made at the City Bacteriological Laboratory, with the result that 1442 cases were diagnosed as true instances of the disease. An indication of the increasing confidence of practising physicians in the laboratory diagnosis of diphtheria is shown by the

fact that seventy-six per cent. of the cases examined last year were classed as "doubtful" by the attending physician, while the preceding year a clinical uncertainty was expressed in but forty-one per cent. of the total cases sent to the laboratory. A total of nearly six thousand cultures, both primary and secondary, were examined last year.

### OUR ROME LETTER.

[From our Special Correspondent.]

THE STRIKE OF THE STUDENTS AT THE ITALIAN UNIVERSITIES—THE NEW ROMAN POLYCLINIC—DURANTE'S WORK IN INTESTINAL ANASTOMOSIS.

ROME, March 10, 1897.

THE Italian Universities are just now confronted by a state of affairs that is extremely interesting to a foreigner. There is a strike (*sciopero*, as they call it here) among the students of all the universities of the kingdom, and for the moment higher education is at a standstill. There is a solidarity in the student-body here that Americans with their sometimes more than friendly rivalry between universities would find it hard to understand. Such strikes have occurred before, but usually have not amounted to much, though for awhile they may have stopped the teaching at several, or even at all, of the institutions. This year the new Minister of Education, Gianturco, attempted the introduction of some reforms in university matters, and, among other things, he decreed that a supplementary examination should take place about the middle of each scholastic year. His earlier reforms had caused a good deal of disaffection, and this last step at once met with open resistance. The students, first at Palermo, and then gradually at the other universities, refused to continue their studies unless the minister's decree was rescinded. This demand was refused on the part of the government, and an attempt was made to pick out and properly punish the ringleaders in the movement, but without result. This all happened about the beginning of February, and no classes have been held since that time because there has been no one to attend them. The reopening of the university here in Rome was announced for Thursday, March 4th, the day after the termination of the carnival, but as it was realized that it would prove a fiasco, and as the present government, in the disaffected condition of political affairs, cannot afford to be made ridiculous, the reopening was postponed indefinitely.

It looks very much as though the current college year was going to be lost to all classes of students as so much of it has been wasted in the squabble. The medical students have usually been most prominent in the student strikes but this year they seem to have followed only where others led. The prospect of the loss of a year's work should apparently bring the men to their senses, but the spirit of disaffection toward the present government is so profound that the sacrifice does not seem to them to be too great. Meantime the students are organizing political schemes for the overthrow of the present ministry at the approaching elections, and are making public demonstrations in the different cities in favor of Candia. These are partly and supposably manifestations of good will to

ward this candidate, but are also thinly veiled evidences of the present restless condition of the Italians themselves, and so have been forbidden in some places. Our independent American system of university education may have its disadvantages, but at least it is not open to the serious drawbacks that are thus laid bare in a too paternal system of State education.

On the other hand, one of the benefits of State-directed medical education is the magnificent new hospital, "the Polyclinic," for teaching purposes, which is just about ready for occupation. It is beautifully situated on some high ground, just outside the Porta Pia, to the right and beyond the walls of the old Roman "Castra Pretoria." It is an immense building, the hospital departments proper or wards being two stories in height, and ten in number in front, branching off from a corridor that runs on each side of the main central building, which is to be more especially devoted to teaching and administration purposes. One half is to be devoted to clinical medicine, and the other half to clinical surgery. It covers an area of ground corresponding to the Pretorian camp in size, and is to have accommodations for about 1000 patients. It is distinctly modern in every respect; the wards are high, well lighted, and airy, and the operating and consulting rooms contain the very latest improvements. No expense has been spared to make it a model hospital for teaching purposes in every respect. Rome has been laboring under the serious disadvantage of her old-fashioned hospitals for a long enough time, and now is to be congratulated on this magnificent addition to her medical equipment.

Things medical are generally very quiet during the enforced vacation. Professor Durante continues his surgical clinics at the Instituto Chirurgico, where his work in intestinal anastomosis has attracted a good deal of attention. He replaces the Murphy button for end-to-end anastomosis by a cylinder of macaroni that is smaller in diameter at the middle than at either end. In shape and general appearance it resembles the cylinders of decalcified bone, that have been found so suitable for the same purpose in England. His results are excellent and the use of a material that is absorbed *in situ* seems better than a foreign body that must eventually be ejected. The comparative simplicity and inexpensiveness of the cylinder also commends the method.

#### TRANSACTIONS OF FOREIGN SOCIETIES.

##### Paris.

POST-OPERATIVE ACUTE SUPPURATIVE MENINGITIS CURED BY TREPHINING—OCCURRENCE OF INTESTINAL LITHIASIS—OPERATIVE TREATMENT OF CARCINOMA OF THE RECTUM—EARLY NERVOUS SYMPTOMS OF POTT'S DISEASE—MULTIPLE LYMPHADENOMATA WITHOUT LEUCOCYTHEMIA.

At a session of the Academy of Medicine held March 2d, BERGER discussed a case of *acute suppurative meningitis following operation and healed by surgical measures*. The patient was a woman, aged thirty-three, who possessed, from her fourth year, a swelling corresponding to the frontal sinus. Under the supposition that it was a

cyst, Luc resected a part of the anterior wall of the frontal sinus, and there escaped spontaneously, and by curetting, a quantity of colloid and fungoid material, the tumor being a sarcoma. The wound suppurated, and one month later it was enlarged, and an intra-orbital prolongation of the tumor was extirpated after resection of the superior wall of the orbit. Despite drainage, symptoms of meningitis and paralysis of the right side appeared on the eighth day. The posterior wall of the sinus was trephined, the dura was incised, and a coating of pus was wiped from the pia, and the wound drained with iodoform gauze. At the close of the operation the patient came out of the coma which had for some time existed, and recovery was ultimately complete, although complicated by an infectious pneumonia.

The case well illustrates the dangers which may follow operations upon the frontal sinuses. Gauze drainage is certainly preferable to suture in these cases. The advantage of early and wide trephining in intracranial suppuration, whether of mastoid origin or occurring elsewhere, is also illustrated by this brief history.

During the session of March 9th, DIEULAFOY said that as a result of observations made by himself, and those previously made by Laboulbene, he concludes that *intestinal lithiasis is of frequent occurrence, and is often associated with mucomembranous enterocolitis*. The gravel or sand or genuine calculi are formed chiefly of calcium and magnesium salts. Etiologically, intestinal lithiasis is oftener found in persons of a gouty diathesis, but this rule is by no means invariable. There may be no special symptoms, but usually there is abdominal pain—often a veritable colic—followed by stools containing a greater or less quantity of gravel, either with or without a mucus discharge.

QUENU discussed the *treatment of carcinoma of the rectum* before the Surgical Society, February 24th. The establishment of an artificial anus, even with any amount of irrigation, etc., of the lower bowel, is not sufficient to secure asepsis in a subsequent operation of extirpation. It is indispensable to carefully obliterate both ends of the diseased organ, so as to remove it en masse, like a cyst. And an incision into the cancerous rectum, or a digital exploration of it during operation, is a serious error. Quenu's method is to make an oval incision around the anus from the coccyx to the superficial transversus peronei muscle. The anus is carefully closed. The sphincter on each side of the anus is dissected and then the superficial and deep transversus peronei until the anus is entirely separated from the levator ani. In this manner the prostate is easily reached, and may be resected in whole or in part, provided a catheter be introduced into the urethra to protect this canal from injury. By this method ten or twelve centimeters of the bowel are readily freed and brought down without great traction.

At the session of the Medical Society of the Hospitals held February 26th, SIREDEY, in speaking of the *early nervous symptoms of Pott's disease*, placed especial emphasis upon exaggeration of the reflexes indicating a special excitability of the spinal cord, and fever, pointing to infection frequently due to tuberculosis.

ACHARD said that these and other early manifestations were more frequently seen in adults than in children, because of the slow progress of vertebral tuberculosis in adults.

MOUTARD-MARTIN emphasized the importance, in all cases of persistent neuralgia, of the careful examination of the bones. He recalled one case in which excruciating sciatic pain existed for over two years before an osteosarcoma of the iliac fossa gave evidence of its presence by the least swelling.

At the session of March 5th, HAYEM presented a man who, five years previous, was obliged to give up his work on account of a febrile affection, which was diagnosed as mumps. The swelling never entirely subsided. Some time later the neck began to swell, and then the groins, and ultimately the axillae, accompanied by cyanosis. The swellings were diffuse, ill-defined, soft at some spots and hard at others, corresponding to indurated and hypertrophied glands. Both the red and white blood-corpuscles were increased—the latter slightly so. Iodid of potassium and arsenic were taken without benefit, but thyroid capsules caused the disappearance of the cyanosis and feeling of depression, while the swellings grew softer under this treatment. The disease seemed to be that of *multiple lymphadenomata without leucocythemia*, differing from the ordinary type of the affection by the participation in the process of the periglandular tissues.

At a meeting of March 12th, WIDAL and MESLAY described a *post-mortem* examination performed by them upon a man who died of staphylococcus pyemia following a suppurative bunion. There were abscesses in the kidney, epididymis, and lung, and about a quart of pus in the pericardium. There was no history of pain in the gastric region, and there had never been any attacks of vomiting or hematemesis. There was, however, a perforating ulcer of the stomach, the base of which was formed directly by the subperitoneal adipose tissue. Numerous sections were made in the ulcer, but no staphylococci were found. Nevertheless, the writers were inclined to ascribe the cause of the ulcer to the staphylococcus infection.

At a meeting of the Biological Society, held February 27, GILBERT described *guaiacol phosphate* as a crystalline body without color, smell, or taste, soluble in strong alcohol, but insoluble in water, glycerin, or oil. It contains about ninety per cent. of guaiacol. It passes through the stomach without change, but is disintegrated in the intestine and absorbed. It is eliminated chiefly by the kidneys. Compared with other compounds of guaiacol, the phosphate possesses the advantage of having a larger proportion of this substance than the others, excepting the carbonate and the phosphite. The phosphate and the phosphite are superior to the carbonate, in that their disintegration sets free a phosphoric radical, instead of indifferent, carbonic acid. On account of a higher melting point (97° C.) and its insolubility in oil, the phosphate cannot be applied to the skin or used for interstitial injections, suppositories, or enemata. On the other hand, the absence of taste and smell, its insolubility in the stomach, and its low degree of toxicity are advantages which will secure for it a place in therapeutics.

# Vienna.

## FATAL HEMORRHAGE FROM THE EAR IN A CHILD—THE SURGICAL TREATMENT OF SPASTIC PARALYSES—TERTIARY MANIFESTATION CLOSE UPON THE PRIMARY SORE.

At the session of the Imperio-Royal Society of Physicians held February 26, PANZER described a case of *hemorrhage from the ear*, occurring in a child aged two and a half years, who was operated upon some time previous on account of an aural discharge. Without any evident cause there suddenly developed a hemorrhage from the ear, which was imperfectly controlled by tampons. At autopsy the brain was found to contain numerous tubercles, some of them as large as a pigeon's egg. The temporal bone was carious in many places. The process had eaten away a part of the wall of the carotid canal with resulting hemorrhage. This accident has happened, as far as known, only thirteen times in children.

At the session of March 5, LORENZ read a paper upon the *surgical treatment of spastic paralyses*. For practical purposes it may be said that the condition in these cases is one of weakened cerebral influence, and the possibility of walking is often entirely abolished by the contractions. Improvement may be hoped for along two lines. In order to accommodate for the loss of power of certain muscles one may employ apparatus, and counteract the excess of power of some muscles by the use of elastic bands. This method of treatment gives no permanent result, for either immediately or soon after the removal of the apparatus its good effects disappear.

Another line of treatment is therefore to be recommended. The case is not one of paralyzed muscles, but, on the contrary, of muscles which are acting in a vehement, though irrational way. The object of treatment is therefore to lessen their power, while increasing the voluntary control over them. At the same time it is desirable to increase the power of the weaker muscles, and in this way to establish an equilibrium between flexors and extensors. The first of these requirements is reached by tenotomy and the separation of the cut ends. Thus in case of a contractile gastrocnemius, etc., producing the deformity called equinus, a division of a tendon and the separation of the cut ends allows the joint to be moved to greater extent than before, while the posterior muscles are prevented by the lengthening of the Achilles tendon from exerting their full force. There follows in the course of time a spontaneous regulation of the relation between muscle and tendon, although there is a continual tendency on the part of the latter to shorten, unless apparatus be worn to prevent this.

In the form of spastic adduction at the hip-joint with knees crossed and walking absolutely impossible, one may, by gradual stretching of accessory muscles, lengthen them, not in the sense that there is any break in the continuity, but rather that the fine muscular bundles give way in numerous places. In recurrent cases, neurectomy is to be advised. Children walk at first with the feet somewhat separated, but the improvement over the previous condition is striking enough. Electrical treatment, mas-

sage, and gymnastics serve not only to restore the power of the weakened muscles, but stimulate the cerebral innervation.

KAHAME described to the Medical Club, February 24, a case of syphilis in a woman, aged twenty-eight, who, *before the exanthemata appeared, suffered from perioritis of the skull and the clavicle.* She was treated with twenty-nine applications of mercurial ointment. Later there developed *rupia syphilitica*, headache, dizziness, whirling in the ears, disturbance of sight, and lancinating pains. There was evidently a lesion in the central nervous system, perhaps a meningitis. At the same time there developed a bilateral atrophy of the optic nerve, with Rhombert symptoms, and increase in the patellar reflex. Cases in which tertiary lesions follow rapidly the initial symptoms of syphilis are not unknown to medical literature. Kahame at one time saw two cases in whom, before six months had elapsed after the primary lesion, hemiplegia developed.

## SOCIETY PROCEEDINGS.

### HARVARD MEDICAL SOCIETY OF NEW YORK CITY.

*Stated Meeting held March 27, 1897.*

The President, JOHN WINTERS BRANNAN, M.D., in the Chair.

The paper of the evening, entitled,

#### "HYDROTHERAPY IN TYPHOID FEVER"

was read by DR. FRANK H. DANIELS.

(See page 487)

#### DISCUSSION.

DR. R. W. WILCOX said he was glad the author had entitled his paper "Hydrotherapy in Typhoid Fever," because he had never been able to understand why this method of treating typhoid should be called the Brand method. The first important contribution to the subject was that by Currie, and Brand's communication, in 1861, practically attracted no attention until Currie endorsed the treatment in 1866. The Currie-Jürgensen treatment shows many variations in theory. In the beginning, the treatment was used to reduce temperature, but this main reason for its employment seems to have been lost sight of. It was claimed that much good was accomplished by the treatment in the way of stimulating the nervous system, but this is difficult to prove or disprove. The treatment undoubtedly increases the elimination of the urinary toxins, but if this is the main reason for its use in typhoid, it does not seem a sufficient argument. It is generally admitted that the treatment has nothing to do with the patient and nothing to do with the disease. In his experience, the treatment of typhoid by baths had not influenced the course of the disease, except so far as the increased elimination of toxins was concerned. The success which was claimed for the treatment was to be explained by the earnestness and enthusiasm of those who practice it, and by the fact that it gives a direct road in which the physician can travel.

DR. ARTHUR L. FISK said that when he had typhoid himself he had been given the baths, and that he dreaded them exceedingly. It was anything but pleasant to be taken from bed by the head and the heels and dropped into a tub of cold water. The baths had no effect upon the temperature in his case, but when they were stopped, at the earnest solicitation of a relative of his, the temperature subsided, and the fever ran a more favorable course. In Trinity Hospital it was the custom to give typhoid patients sponge-baths, instead of putting them in the tub, and this seemed to him the better way. A rubber sheet is placed under the patient, and the bath given in bed. Most excellent results had been thus obtained. He did not approve of treating any disease in a routine way. In typhoid, the treatment had to be varied to suit the individual. The remarkable statistics of Brand were collected in Germany, and he thought the treatment must be better borne by Germans than by Americans, who seem to be more sensitive. Personally, he had found that careful dieting and the use of castor oil in small doses, every other day, would safely carry many cases of typhoid through the disease.

DR. CHARLES L. GIBSON said that when he was an interne at St. Luke's Hospital, the bath treatment of typhoid was carried out as a routine measure by Drs. Peabody and Kinnicutt, and it seemed to him to be very severe. He recalled cases of patients who were tubbed as often as seventeen times in the twenty-four hours. The temperature was taken every hour, and as soon as it reached 102.3° F., or over, a bath was given for from five to twenty minutes, usually at a temperature of 65° F. The treatment was hard on the patient, who got no rest at all, and upon the attendants, and at his request the body temperature was taken only every three or four hours, and the baths given less frequently. He was of the opinion that treatment by baths completely changes the type of the disease. Danger of hemorrhage and perforation, however, is not eliminated. He had been especially impressed with the after-appearance of the patients treated by baths, as compared with other typhoid patients. They do not seem to pick up as rapidly as they should, and kidney complications are often observed in the convalescence. They are pallid and anemic, and present the typical kidney aspect. Treatment by baths should be symptomatic. If there is a single high temperature a day, a bath is not necessary.

DR. S. BARUCH said it was an error to say that relapse occurred more frequently in cases which were treated by the Brand method than in others, and that, therefore, this was no argument against the treatment. In regard to the diagnosis of typhoid by the bath, the value of this test had been a revelation to him. He was in the habit of bathing the patient for fifteen minutes in a bath, at 75° F., when there was the slightest evidence of typhoid. This was repeated every three hours, until the temperature was reduced more than two degrees. This test, however, is only of value during the first six days and before the spots appear.

A previous speaker had mentioned the elimination of toxins as the only result of the Brand method of treat-

ment. This is only one of the results; the treatment fulfills every demand of the case. In the first place, it reduces the temperature; secondly, it invigorates the action of the heart, the pulse-rate diminishing in frequency from five to twenty beats after each bath, and, beside the elimination of toxins already mentioned, there is an enormous increase in the quantity of urine passed, sixty-one ounces being quite an ordinary amount, and as much as one hundred and twenty having been noted by the speaker. Another important result of the Brand treatment is the increase of leucocytes in the blood after the baths. By this it was not meant that the leucocytes are produced by the treatment, but that there is such an enormous acceleration of the heart action that they are driven from their hiding-places, so to speak.

He agreed with those who said that routine treatment is bad, but added that the Brand method is not a routine method. It had been thought out under the most definite conditions, the object being simply to improve the condition of the nervous system, which controls all the functions of the body. The baths should be given every three hours, day and night, when the patient is awake, but he is never disturbed for this purpose if he is asleep. The records of 8000 cases of typhoid fever in a military hospital in Germany, covering a period of forty years, during which time there were epidemics of the disease, treated by different physicians, show that just as soon as the Brand method was adopted the mortality was reduced from fifteen to twenty per cent., and that when the mixed treatment (salicylic acid and quinin, with the baths) was employed, this was reduced to seven per cent., and under strict bathing, to 2.7 per cent.

In regard to the case mentioned by Dr. Gibson, where the patient had been given seventeen baths a day, he was surprised to learn that the patient lived to look like a kidney case. Brand never claimed the danger of hemorrhage and perforation is eliminated by the bath treatment, unless the patient was seen before the fifth day, and his 1200 cases show plainly that those patients who died were all admitted after the sixth day. As to the patients treated by the Brand method recovering more slowly than others, the statistics of Vogel, collected in a military hospital, dwell upon this point, and show that the patients were able to go back to their military duty at an early date. He admitted that he thought the treatment harsh and cruel, and that he had seen only one or two patients who did not object to the baths; but he knew of no other method of treatment which produced the same good results, and until such was discovered, typhoid patients must be treated with the means that have been found most efficacious by such men as Delafeld and Peabody.

THE PRESIDENT said he was extremely surprised to learn of the position taken by the majority of the speakers. He had supposed that the Brand or the Currie-Jürgensen treatment was accepted everywhere, in spite of the disadvantages which Brand himself admits. He had seen excellent results follow this treatment. In Bellevue Hospital it was the custom to give the patients a bed-bath, which is more easily given than the tubbing, and which has the same effect of reducing the temperature, dimin-

ishing the nervous symptoms, and causing the patient to sleep. In cases with hemorrhage or perforation, he had seen excellent results follow the use of the cold coil. As it was often impossible for the country practitioner to carry out the tub treatment, he asked Dr. Daniels and Dr. Baruch if bed-baths and the coil could not be used in its stead.

DR. BARUCH replied that he had had no experience with bed-bathing, unless the speaker referred to the sheet-bath, *i.e.*, the patient is wrapped in a wet sheet and enveloped in a blanket; water is thrown on him by the cupful and the body rubbed until it ceased to warm up. He had employed this method while practising in the country, in the Southern States. He did not think it was quite as good as the Brand method, but anything that would give a shock to the peripheral nervous system and a consequent reaction, allowing a quantity of blood to be cooled, would have a good effect and be better than nothing, just as partial asepsis is better than no asepsis.

DR. DANIELS, in closing, said that bed-bathing would answer if good results were gotten from it; if not, it was better to make the patient a little more uncomfortable and give him a Brand bath, for the sake of the good to be obtained. In regard to calling this the Brand treatment, the method he had referred to in his paper was that given by Brand, who had found that by giving baths of a certain temperature, at certain intervals, for a certain length of time, and with friction, the best results were obtained. Dr. Fisk had said that in his case the baths did not reduce the temperature. He had stated in his paper that they had no marked effect on the temperature and that they were not given for that purpose. In regard to the method being a routine practice, the same might be said of the treatment of rheumatism or malaria. The bath treatment could be modified to suit individual cases. In regard to the bad effect of the baths on the nervous system, the case mentioned in the paper of the woman who was seven months pregnant at the time the baths were given, and went on to full term, would disprove this.

DR. ARTHUR L. FISK reported a case of gout, and exhibited a photograph and skiagraph of the patient's hand, which had become deformed during the progress of the disease. (See page 496.)

THE PRESIDENT thought the X-ray photographs might prove a valuable aid in the differential diagnosis of this condition.

DR. EDWARD K. DUNHAM reported the following case of aortic aneurism in which the condition was not recognized during life, although there were two large aneurisms—one of the arch of the aorta, and one of the abdominal portions of that vessel. The latter caused death by perforating the diaphragm and rupturing into the pleural cavity.

The patient was a Russian, thirty-nine years of age, who was admitted to the Montefiore Home in October, 1896, and who died March 26, 1897. He was of moderate habits and denied syphilitic infection. His trouble began about two years before his admission to the Home, and first manifested itself by the occurrence of "cramps in the stomach." When he entered the Home he complained

of pain in the abdomen, in the back, and in the lower extremities, which was so severe in character as to cause sleeplessness. He was very anemic and much emaciated. The spinal column exhibited a distinct lumbar kyphosis and dorsal lordosis, and the lower part of the thorax was expanded, giving the chest a somewhat bell-shaped appearance.

On auscultation the left side of the thorax appeared to be normal. On the right side the respiratory sounds were absent, except at the apex of the lung and over a small area on the right side of the thorax. These physical signs were due to the aneurism of the arch of the aorta which was discovered at the autopsy. The abdominal aneurism gave rise to a palpable tumor, which was attributed to enlargement of the spleen. The liver was also considered to be enlarged because of its being pushed downward by the thoracic aneurism. There being a suspicion of pernicious anemia, the blood was examined. A few nucleated red blood-corpuscles were discovered, and a slight increase in the number of leucocytes, many of which contained eosinophile granules, was noted, but no indication of the changes characteristic of pernicious anemia was found. On one occasion the urine contained a little albumin, but, with that exception, revealed no abnormal condition.

At the autopsy a spherical aneurism was discovered springing from the right side of the arch of the aorta near its origin which was four inches in diameter. It was filled with firm clots, leaving a clear passage through which the blood could pursue a practically normal course without occasioning any sounds perceptible on auscultation. The innominate artery showed a moderate fusiform dilatation extending from its origin to its point of division. The spleen was normal in size, and was adherent to a large aneurism of the abdominal aorta measuring  $8\frac{1}{2}$  inches vertically, six inches transversely, and about three inches antero-posteriorly. The aneurismal sac began as a dilatation of about three inches of the posterior wall of the aorta, and then expanded behind the peritoneum, upward to the diaphragm, and downward for about four inches to a point a little below the bifurcation of the aorta. It displaced the left kidney and extended to the right across the spinal column, causing an erosion of the last dorsal and first two lumbar vertebrae. The sac had become adherent to and subsequently pierced the diaphragm on the left side, and at this point there was a rupture of the sac, leaving a hole about three-fourths of an inch in diameter through which hemorrhage had taken place into the left pleural cavity, which was found filled with blood at the autopsy. The left lung was compressed and rendered atelectatic, and the heart was displaced to the right by this effusion of blood. The flow of blood through the abdominal aorta did not appear to have been either checked or diverted by the presence of this aneurism, the sac of which was filled with firm and dense masses of clot. These facts explain the absence of any bruit which would have led to a detection of the aneurism during the life of the patient. The middle cerebral arteries on both sides showed numerous miliary aneurisms. The anemic condition of the patient and the changes in the blood are re-

ferable to the loss of blood into the aneurismal sacs, and to the consequent attempt to repair the loss of blood-corpuscles.

The case appears of interest because of its obscure nature during the life of the patient, and the proneness of the arteries to aneurismal dilatation without obvious lesions of the vascular walls which would explain their weakness. As yet no microscopic studies of the arteries has been undertaken, and it is possible that, when these have been completed, they will reveal changes explaining the conditions underlying the development of these numerous aneurisms.

DR. HENRY C. COE cited the following cases to show the possible risks of moderate dilatation of the cervix in multiparae:

CASE I.—Multipara, aged thirty; diagnosis: ruptured ectopic pregnancy, with encysted blood-clot. Cervix had been lacerated bilaterally and had healed, leaving firm cicatrices, especially on the left side. Before opening the abdomen the cervix was gently dilated, first a Wylie and then a Waltham instrument being used. With a separation of a little more than half an inch the cicatrix on the left side suddenly gave way and a deep rent followed, extending up into the broad ligament. After curettement, the uterine cavity was packed with gauze, and the lacerated wound was also lightly tamponed. Celiotomy and removal of the ectopic sac was then done, there being no evidence of internal injury to the broad ligament or of hematuria. Irrigation without drainage was carried out. Uneventful recovery and perfect healing of the cervical tear resulted. The patient has since had two abortions.

CASE II.—Multipara, aged thirty-two; bilateral laceration of the cervix, with extreme induration. Moderate dilatation with Wylie's instrument up to half an inch was performed, when a deep tear occurred on the left side, extending into the broad ligament. Hemorrhage was considerable in amount. After becoming satisfied that the peritoneal cavity had not been entered, a deep wire suture was passed beneath the upper angle of the tear, which controlled the bleeding. The uterus was then curetted, the cervix amputated, and a laceration of the pelvic floor repaired. There was slight febrile reaction on the third day, with pain on the left side. Subsequently, convalescence was normal. When examined a few months later, the patient had a hard, tender cicatrix extending along the base of the left broad ligament, which caused slight deviation of the cervix to that side.

CASE III.—The patient, who was seen in consultation, was a primipara, aged twenty-eight. The operator, an experienced surgeon, was divulsing the cervix preparatory to curettement for incomplete abortion. He stated that on making gentle, steady pressure on the handles of a Wylie dilator, the cervix suddenly tore like wet paper, and there was furious hemorrhage from the left uterine artery. Time was lost in sending for clamps, retractors, etc. He was unable to seize the vessel with forceps, and in order to prevent the patient from bleeding to death, he compressed it with his fingers within the peritoneal cavity until the speaker's arrival, twenty minutes later. He found that the patient had not lost much blood, and was

in good condition. Under a good light, he readily succeeded in grasping both ends of the artery, which was undoubtedly the uterine. Two fingers could be passed into the peritoneal cavity through a rent in the posterior fold of the broad ligament, which was partly detached from the uterus. As there was no indication for celiotomy, a gauze drain was inserted, and venous oozing controlled by packing, the clamps being left *in situ*. They were removed seventy-two hours later. An afebrile convalescence followed, the wound healed rapidly, and the patient was up in three weeks.

These cases were mentioned simply to emphasize the importance of exercising more than ordinary care and gentleness in division of a cervix which has healed after a previous extensive laceration, the os being contracted to such a degree that curettement is impossible. The powerful instrument devised by Walthen is certainly a dangerous one to use under such circumstances. In an aseptic operation, mere splitting of the cervix is of slight import, aside from the formation of a large, and often painful, scar. But the injury may be more extensive, as in Case III., involving the risks incident to opening the peritoneal cavity where the aseptic preparation of the vagina may have been imperfect. In any case, it is well not to undertake the simplest gynecologic operation without having at hand the means of controlling hemorrhage and repairing accidental lesions.

DR. GEORGE W. JARMAN said he considered the Wylie dilator more dangerous than the Walthen, and knew of two cases in which the fundus uteri had been perforated and one in which Douglas' cul-de-sac had been entered, by it. Laparotomy was done in the two former cases, both of which recovered. In the third case, the wound was carefully sponged after the protruding intestine was replaced, and as there was not much hemorrhage, only one suture was introduced. This patient also recovered. All three cases were drained, for fear the vagina had not been aseptically prepared before the division.

DR. JOHNSON of Boston said the parts should be as thoroughly prepared for division and curettement as for an abdominal operation, and cited a case in which death from sepsis followed laceration of the uterus, because the vagina had not been aseptically prepared.

## ANNOUNCEMENT.

### BRITISH MEDICAL ASSOCIATION.

THE sixty-fifth annual meeting will be held at Montreal on Tuesday, Wednesday, Thursday, and Friday, August 31, September 1, 2, and 3, 1897.

#### PRELIMINARY PROGRAM.

President: Henry Barnes, M.D., M.R.C.S., F.R.S.E., J.P., Physician Cumberland Infirmary, Carlisle.

President-elect: T. G. Roddick, M.D., M.P., Professor of Surgery in McGill University, Montreal.

President of the Council: Robert Saundby, M.D., F.R.C.P., 83A Edmund street, Birmingham.

Treasurer: Charles Parsons, M.D., Dover.

#### Addresses will be delivered as follows:

"Medicine," Dr. W. Osler, F.R.C.P., Professor of Medicine in the Johns Hopkins University, Baltimore.

"Surgery," Mr. William Mitchell Banks, F.R.C.S., Surgeon to the Liverpool Royal Infirmary.

"Public Medicine."—

The scientific business of the meeting will be conducted in eleven sections, as follows, namely:

#### MEDICINE.

President—Dr. Stephen MacKenzie, London. Vice-presidents—Dr. J. E. Graham, Toronto; Dr. W. Bayard, St. John, N. B.; Dr. J. P. Rottot, Montreal; Dr. F. W. Campbell, Montreal; Dr. J. Stewart, Montreal; Dr. H. P. Wright, Ottawa. Secretaries—Dr. H. A. Lafleur, Montreal; Dr. W. F. Hamilton, Montreal; Dr. William Pasteur, 4 Chandos street, Cavendish Sq., London, W.

#### SURGERY.

President—Mr. Christopher Heath, London. Vice-presidents—Sir Wm. Hingston, Montreal; Hon. Dr. Sullivan, Kingston, Ont.; Hon. Dr. Farrell, Halifax, N. S.; Dr. I. H. Cameron, Toronto; Dr. F. LeM. Grasset, Toronto; Dr. James Bell, Montreal; Dr. G. E. Armstrong, Montreal. Secretaries—Dr. R. C. Kirkpatrick, Montreal; Dr. Thomas Walker, St. John, N. B.; Mr. Jordan Lloyd, F.R.C.S., Richmond Hill, Birmingham.

#### PUBLIC OR STATE MEDICINE.

President—Dr. E. P. LaChapelle, Montreal. Vice-presidents—Dr. Montizambert, Quebec; Dr. R. Craik, Montreal; Dr. P. H. Bryce, Toronto; Dr. Sir James Grant, Ottawa; Dr. R. H. Powell, Ottawa. Secretaries—Dr. Wyatt Johnson, Montreal; Dr. E. Pelletier, Montreal; Dr. Henry Littlejohn, Town Hall, Sheffield.

#### OBSTETRICS AND GYNECOLOGY.

President—Dr. W. J. Sinclair, Manchester. Vice-presidents—Dr. Wm. Gardner, Montreal; Dr. James Perrigo, Montreal; Dr. J. A. Temple, Toronto; Dr. J. C. Cameron, Montreal; Dr. J. T. Alloway, Montreal; Dr. James Ross, Toronto. Secretaries—Dr. D. J. Evans, Montreal; Dr. W. Burnett, Montreal; Dr. A. E. Giles, 58 Harley street, Cavendish Sq., London, W.

#### PHARMACOLOGY AND THERAPEUTICS.

President—Dr. D. J. Leech, Manchester. Vice-presidents—Dr. A. D. Blackader, Montreal; Dr. James Thornburn, Toronto; Dr. C. R. Church, Ottawa; Dr. J. B. McConnell, Montreal; Dr. F. J. Austin, Sherbrooke; Dr. Walter George Smith, Dublin. Secretaries—Dr. F. X. L. DeMartigny, Montreal; Dr. J. R. Spier, Montreal; Dr. Charles Robertshaw Marshall, Downing College, Cambridge.

#### PATHOLOGY AND BACTERIOLOGY.

President—Mr. Watson Cheyne, London. Vice-presidents—Dr. J. G. Adami, Montreal; Dr. J. Caven, Toronto; Dr. J. Stewart, Halifax; Dr. J. C. Davie, Victoria; Dr. L. C. Prevost, Ottawa; Dr. M. T. Brennan, Montreal. Secretaries—Dr. W. T. Connell, Kingston; Dr. C. F. Martin, Montreal; Dr. Robert Boyce, University College, Liverpool.

## PSYCHOLOGY.

President—Dr. R. M. Bucke, London, Ont. Vice-presidents—Dr. D. Clarke, Toronto; Dr. T. J. Burgess, Verdun, Quebec; Dr. A. Vallee, Quebec; Dr. G. Wilkins, Montreal. Secretaries—Dr. J. V. Anglin, Montreal; Dr. Geo. Villeneuve, Montreal; Dr. J. G. Blandford, London County Asylum, Banstead, Surrey.

## OPHTHALMOLOGY.

President—Mr. Nettleship, London. Vice-presidents—Dr. F. Buller, Montreal; Dr. R. A. Reeve, Toronto; Dr. Ed. Desjardins, Montreal; Dr. A. A. Foucher, Montreal. Secretaries—Dr. W. H. Smith, Winnipeg; Dr. Jehn Prume, Montreal; Dr. T. H. Bickerton, Liverpool.

## LARYNGOLOGY AND OTOTOLOGY.

President—Dr. Greville Macdonald, London. Vice-presidents—Dr. W. Tobin, Halifax; Dr. G. A. S. Ryerson, Toronto; Dr. H. S. Birkett, Montreal; Dr. G. R. McDonagh, Toronto. Secretaries—Dr. Chretien, Montreal; Dr. H. D. Hamilton, Montreal; Dr. W. Permewan, 7 Rodney street, Liverpool.

## ANATOMY AND PHYSIOLOGY.

President—Dr. Augustus Waller, F.R.C.S., London. Vice-presidents—Dr. F. Shepherd, Montreal; Dr. A. B. MacAllum, Toronto; Dr. T. Wesley Mills, Montreal; Dr. A. Primrose, Toronto; Dr. J. B. A. LaMarche, Montreal; Dr. D. B. Fraser, Stratford, Ont. Secretaries—Dr. J. M. Elder, Montreal; Dr. W. S. Morrow, Montreal; Dr. Robert Hutchison, London.

## DERMATOLOGY.

President—Mr. Malcolm Morris. Vice-presidents—Dr. J. E. Graham, Toronto; Dr. F. J. Shepherd, Montreal; Dr. J. A. S. Brunelle, Montreal; Dr. J. L. Milne, Victoria. Secretaries—Dr. Gordon Campbell, Montreal; Dr. J. M. Jack, Montreal; Dr. James Galloway, 21 Queen Anne street, Cavendish Square, London, W.

## REVIEWS.

**DISEASES OF THE STOMACH.** A Text-Book for Practitioners and Students. By MAX EINHORN, M.D., Instructor in Clinical Medicine at the New York Post-Graduate Medical School; Visiting Physician to the German Dispensary. New York: William Wood & Co. 1896.

The appearance of a book on gastric diseases from the pen of one who is recognized as an authority on the subject is necessarily of interest. For many years Dr. Einhorn has concerned himself with this chapter of medical inquiry, and has devised methods of examination which have met with more or less approval. The author tells us that it was his design to make this book practical, and by this he evidently means that he leaves scientific questions undecided. That this is the case, we will show later in a few cited instances; but this plan has militated powerfully against the value of the book, for in scientific precision it cannot be compared with the similar works of Boas and of Ewald, and these books, too, are neverthe-

less practical. Moreover, Dr. Einhorn is capable of writing scientifically, as his published articles have shown.

So far as the contents of the book are concerned, there is little left to be desired in the matter of completeness. The author discusses successively the anatomy and physiology of the stomach, methods of examination, diet, organic diseases with constant lesions, functional diseases with variable lesions, abnormal conditions with reference to the size, shape, and position of the stomach, nervous affections of the stomach, and, finally, the condition of the stomach in diseases of other organs.

In the 478 pages of the book, there is no doubt that, despite the author's evident attempt not to take his readers into too deep scientific waters, very much of value is embraced. The various gastric disturbances, organic and inorganic, are thoroughly discussed, diagnosis and differential diagnosis are exhaustively considered, and therapeutic measures, especially diet, are well presented. But with all this, there is a feeling that the author is concealing something and does not state his own opinion positively enough. The criticism that the author mentions himself and his work too frequently should not be made, in all fairness, since it is *his* experience and *his* opinion that the reader wishes to learn.

Of the omissions, there are not many, Dr. Einhorn even mentioning the Röntgen ray as having some diagnostic value in gastric diseases. He neglects to speak of Kader's method of gastrostomy, and mentions Witzel's method as the latest. He fails utterly to give his opponents a hearing as to the electric excitability of the fundus of the stomach. Of course, Einhorn's electrization of the stomach falls to the ground if Meltzer's experiments are correct; but Meltzer recently (December, 1896) demonstrated before the American Association of Physiologists that the fundus does not contract upon faradic or galvanic irritation, and it would have seemed the part of candor, at least, for Einhorn to have been less dogmatic in his statements in the book under consideration. A record in a text-book is, by that fact, usually regarded as authentic, and it is unfortunate that matters of controversy should be injected as true in a book which is sure to have as wide a circulation as Einhorn's. Experimental evidence, of course, does not impugn positive clinical results, and it is likely that Einhorn's or any other method of electrization of the stomach will be productive of benefit in nervous people, just as the application of the current is helpful in functional neuroses generally.

Transillumination of the stomach is naturally given considerable space, although Dr. Einhorn's method has not met that recognition which he hoped it would. He fails to caution against the use of the gastric diaphane when aortic aneurism is present.

The English is not above reproach. Thus, "there is yet always time" (p. 146), "spikes" for "spokes" (p. 90), "roll particles" (p. 327). In the main, the author's style is flowing, easy, and clear. The illustrations are excellent. Particularly fine are the pathological drawings of Dr. Elsberg, which are worthy of a text-book of pathology. They are well drawn and well reproduced.

This book will have a wide reading, and will probably see many editions. It is, with the exceptions above noted, a good *résumé* of the present knowledge of the subject it considers.

**MINOR SURGERY AND BANDAGING.** By HENRY R. WHARTON, M.D., Demonstrator of Surgery in the University of Pennsylvania. New (third) edition. In one 12mo volume of 594 pages, with 475 engravings, many being photographic. Cloth, \$3.00. Philadelphia: Lea Brothers & Co. 1896.

For the past five years "Wharton's Minor Surgery and Bandaging" has justly held a high place in the regard of medical students. Clearness of cuts and text in the third edition makes the art of surgical dressing and bandaging easily learned. The practitioner will be interested in such authoritatively detailed and faithfully illustrated procedures as amputations, resections, tracheotomy, intubation, etc.

This book is so modern and up-to-date in general that we wonder why space is given to such useless and ancient operations and instruments as the first, second, and third methods of acupressure, Bellocq's canula, scarificator, and sorte-moxa.

**PRACTICAL NOTES ON URINARY ANALYSIS.** By WILLIAM B. CANFIELD, A.M., M.D., Lecturer on Clinical Medicine, University of Maryland, etc. Second, (revised) edition. Detroit, Mich.: George S. Davis. 1896.

THIS little book is one of the Physician's Leisure Library series, and the author has attempted to point out to the general practitioner, the various methods of examining the normal and pathological constituents of the urine. His efforts are not always satisfactory, and some errors and many repetitions are noted. We do not agree as to the reliability of many of the "test papers" in the examination for albumin and sugar, which are so highly lauded by the author. Most of the illustrations are the ones commonly found in works on urinalysis, but they are poorly executed.

**THE DIARY OF A RESURRECTIONIST (1811-1812)**, to which is added an Account of the Resurrection Men in London, and a short History of the Passing of the Anatomy Act. By JAMES BLAKE BAILEY, B.A., Librarian of the Royal College of Surgeons of England. London: Swan, Sonnenschein & Co., Lim. 1896.

"Ask no questions for your conscience's sake," says Mr. K., the lecturer on anatomy, to his assistant, who is about to receive a body for dissection from the resurrectionists. In such words, Stevenson, in his "Body-snatcher," describes the feeling that was common in the English schools of anatomy in the beginning of this century. For at that time the bodies of executed criminals were the only ones given by law to the medical schools. The supply of material, therefore, often ran short, and the schools had to obtain bodies, often at a high price, from other sources. Thus, body-snatching was winked at by the medical profession, and the body-snatcher or resurrectionist, as he was called, carried on, almost unmolested, his nefarious occupation. He was often a drunken ruffian who hesi-

tated at little or nothing; he bribed custodians of graveyards, desecrated and pilfered graves, and finally, even resorted to murder to satisfy his lust for gold. The notorious murders by Burke, Hare, Bishop, and Williams, led directly to the passage of the Anatomy Act of 1832, which dealt a fatal blow to the resurrectionists' occupation. The "Diary of a Resurrectionist" consists of a series of entries extending over one year, and gives us the actual record of the doings of one gang of resurrection men in London. By far the most interesting part of the little book, however, is the information the author gives us of the origin, workings, and habits of the body-snatchers, and the causes which finally led to their disappearance. We consider the little volume a valuable contribution to the history of medicine.

**A TEXT-BOOK ON SPECIAL PATHOLOGICAL ANATOMY.**

By ERNST ZIEGLER, M.D. Translated and Edited from the eighth German edition by DONALD MACALLISTER, M.D., and HENRY W. CATTELL, M.D. Sections 1 to 8. The Macmillan Co., New York and London. Price, \$4.00.

THIS is the first part of Ziegler's Special Pathological Anatomy, and it treats of the blood and lymph, the vascular mechanism, the spleen and the lymph glands, the osseous system, the muscles and tendons, the central and peripheral nervous system and the skin. It is to be followed, very shortly, by a second volume which shall treat of the remaining systems of the body. Ziegler's volumes on Special and General Pathological Anatomy have long been considered by the student and pathologist as the most reliable and resourceful guides to their interpretation of problems in pathogenesis and morbid anatomy. The translators of this volume merit the thanks of English-speaking physicians for the satisfactory manner in which they have performed their task. We do not see wherein they have neglected anything that might have contributed to a more satisfactory presentation of their author's ideas and contributions. The work is up to date, not alone in its subject matter, but in its references; and, fairly so, in its illustrations. Each chapter, or rather the consideration of each subject, is followed by a bibliography, and in many instances this takes up an enormous amount of space compared with the text. Personally, we are of the opinion that the endeavor to consider subjects in a text-book of this kind monographically is a great mistake, and that the space utilized in citing references might be very much better taken up with a fuller discussion of the subject matter, whether it be the views of others, as admitted by the author's experience, or the statement of his individual beliefs.

To the volume is appended an index of more than thirty pages, and we regard this as one of the most commendable features of the work. The book itself will appeal more to the physician and the pathologist than to the undergraduate, and the former will appreciate the copious index. The work contains 308 figures, some of them in colors, most of them very well executed, and they form an attractive feature of the book, which in its general make-up and print is very satisfactory.